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Journal Statement

International Journal of Marketing, Innovation and Strategy (IJMIS) is an open access double-blind peer-reviewed scientific journal which publishes original, high-quality theoretical and empirical research focusing on the fields of marketing, innovation and strategy. All articles published in IJMIS must provide a significant contribution to these fields and focus on topics that are new and advance the current state of scientific knowledge in marketing, innovation and strategy.

Topics

Specific attention will be given to:

- business reorientation as a result of Covid-19 pandemics;
- consumer behaviour & market research;
- data science, artificial intelligence, machine learning, social media strategy, marketing and business intelligence;
- destination marketing and niche tourism;
- digital / integrated communication, advertising and promotion;
- entrepreneurship, competitiveness and innovation in small and medium-sized companies;
- innovative approaches to teaching & learning in marketing, innovation and strategy;
- open innovation, business models and business model innovation;
- social marketing, corporate social responsibility and circular economy;
- other topics in marketing, innovation and strategy.

Conceptual articles are welcomed, using systematic literature review methodology or bibliometrics, as well as empirical articles focusing on case study methodologies, netnography, surveys, sentiment analysis, online naturalising inquiry and cross-sectional or time-series analyses based on secondary data sources.

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Editorial

Volume 1, Issue 1

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Editorial

A New Journal: Do We Really Need It?

And yet another journal. That is what some readers may think when starting to read this editorial. With so many scientific publications and such a difficult path to be recognized in the fields, one may think that a new scientific journal would be an utopian project.

We believe it is not. On the international scene, scientific journals focusing on marketing, innovation and strategy are quite rare, notwithstanding the overlaps of the three research areas. On May 22, 2023, we performed a search on ISI Web of Science, Current Contents, looking at the papers published between 2018 and 2022, with marketing AND innovation AND strategy in Topic, and filtered the results on Business Economics and kept only Articles, Review Articles and Editorial Material.

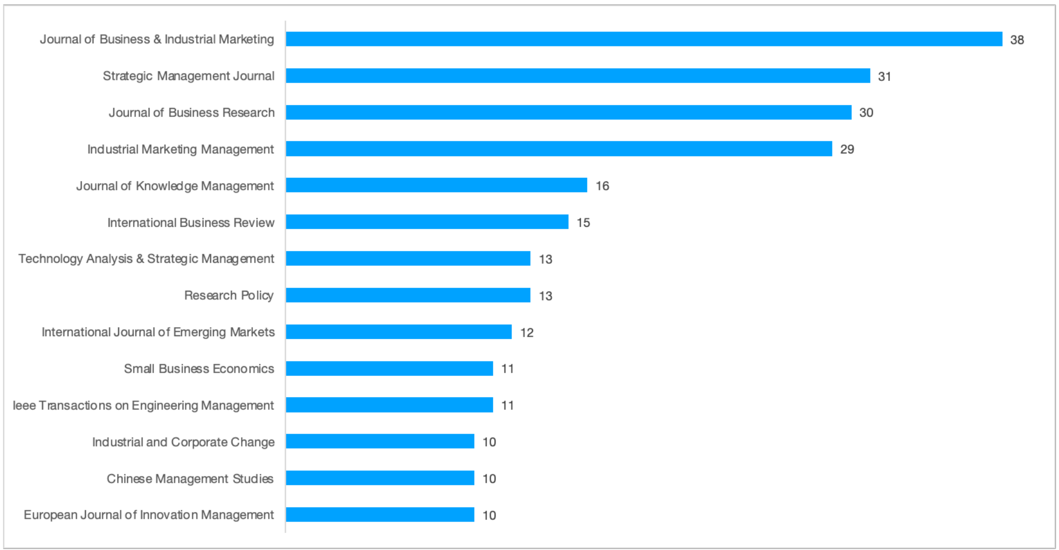

Figure 1 – Distribution of number of publications per journal

Source: Own elaboration

The results were no less than impressive: a total of 1.744 publications on the topic with an increasing trend since 2019. And we only looked at a five-year period. The most prolific author, Sacha Kraus, published 11 articles in this period and only from authors affiliated with the Copenhagen Business School, 31 articles have been published. As seen in Figure 1, Journal of Business Industrial Marketing published a total of 38 publications, followed closely by Strategic Management Journal (31 publications), Journal of Business Research (30 publications) and Industrial Marketing Management (29 publications).

Figure 2 – Word Frequency Map: Abstracts

Source: Own elaboration

When analyzing the most frequent words in the abstracts (see Figure 2), the different research topics emerge. Firms, markets, business, strategy, innovativeness, industry, product, service, knowledge, competitiveness, platforms, data and technology.

Our new journal, IJMIS – International Journal of Marketing, Innovation and Strategy focuses on these topics, yet also dwells deeper in topics like communication, tourism, social marketing, circular economy, entrepreneurship and business reorientation due to contextual change. More specifically, the preferred topics are:

- business reorientation as a result of Covid-19 pandemics;
- consumer behaviour & market research;
- data science, artificial intelligence, machine learning, social media strategy, marketing and business intelligence;
- destination marketing and niche tourism;
- digital / integrated communication, advertising and promotion;
- entrepreneurship, competitiveness and innovation in small and medium-sized companies;
- innovative approaches to teaching & learning in marketing, innovation and strategy;
- open innovation, business models and business model innovation;
- social marketing, corporate social responsibility and circular economy;
- other topics in marketing, innovation and strategy.

For all interested authors, conceptual articles are welcomed, using systematic literature review methodology or bibliometrics, as well as empirical articles focusing on case study methodologies, netnography, surveys, sentiment analysis, online naturalising inquiry and cross-sectional or time-series analyses based on secondary data sources.

The Very First Issue

The first issue of the first volume of our journal presents you a collection of five articles related to the digital world.

Luzia Arantes opens the issue with the perception of consumers on digital marketing and sustainability. More specifically, it focuses on the relationship between digital marketing, its tools and the presence on social networks by brands with online sustainability communication. By means of a questionnaire-based survey, the author uses structural equation modelling. Results indicate the existence of a relationship between digital marketing and the communication of sustainability through digital.

The second article is written by Joana Sofia Boucinha Santos and Ana Pinto de Lima, and analyzes the new online consumption habits resulting from the Covid-19 pandemic. Once again, a quantitative study implemented using a questionnaire-based survey. Results indicate that consumers changed their consumption habits in terms of proportion, amount spent on online purchases and payment methods. Changes were also noticed in the purchasing behavior of certain categories of products during the Covid-19 pandemic.

The third article belongs to Anabela Maria Bello de Figueiredo Marcos and Mariana Martinho Leira, who dive into the topic of the drivers of social media adoption in B2B markets. Based on data collected from workers from B2B companies, a structural equations model was used to test the relationships among the variables learning, memorability, absence of errors, usability, functionality, social influence, satisfaction, trust, and social media adoption. Different drivers influence social media usability, trust in social media and social media usefulness. Satisfaction with social media is achieved through greater ease of use, usefulness, and trust. When social media users are satisfied, are subject to social influence, and judge social media to be usefulness, they tend to adopt social media.

Sara Santos, Pedro Espírito Santo and Luísa Augusto present us an article focused on word-of-mouth antecedents of city residents, in the context of gender differences. Using a cross-sectional study, the authors identify that infrastructure, atmosphere, and perceived psychological well-being positively influence citizens' word-of-mouth.

Our first issue ends with an article on the relationship of online trust with Consumer Generated Media, more specifically the case of Booking. Sandrina Teixeira, Ana Sofia and Ana Pinto de Lima develop a quantitative analysis utilizing a questionnaire-based survey based on the Trust Building Model and take into account three categories: website-based, company-based, and customer-based antecedents. Results indicate that perceived source credibility, information quality, perceived website quality, user satisfaction with previous experiences, and user experience and knowledge are the antecedents that affect online trust in the studied case.

Final Thoughts

All big endeavours start with the first step. And that step was made today.

We begin this journey with hope and responsibility. Hope that we'll be able to keep up the rhythm and lead IJMIS into the future quality publications in the field. And responsibility to ensure the quality is maintained and improved along the years.

We thank all the authors who submitted articles for the first issue. We thank all the members of our editorial team and our community, who received today a new journal, in open source, that will disseminate knowledge related to marketing, innovation and strategy.

May you follow us in the following years, as readers, authors or reviewers. We will do our best to keep you engaged.

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Digital marketing and sustainability:
a study on consumer perceptions

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Abstract

The use of digital marketing to promote sustainability is a controversial topic, as it can be complex to associate a set of strategies aimed at encouraging consumption with environmental sustainability. Nevertheless, digital marketing allows us to reach consumers globally and the promotion of sustainability is urgent in our society at a global level. In this line of thinking, this study aims to investigate the relationship between digital marketing, its tools and the presence on social networks by brands with online sustainability communication and, thus, test the proposed structural model. In this sense, in the empirical part, a questionnaire survey was conducted with 423 participants, 149 (35.2%) men, 273 (64.5%) women and 1 (0.2%) participants of another gender, with an average age of 42.74% (SD = 15.94%), who responded to measures aimed at evaluating the presence of brands on social networks, the use of digital marketing by organizations, the importance attached to digital marketing tools and online sustainability communication. After performing the path analysis, the validation, or not, of the five research hypotheses formulated is presented. The results obtained indicate the existence of a relationship between digital marketing and the communication of sustainability through digital. Subsequently, practical examples of the use of digital marketing, its tools and social networks to promote sustainability and communicate it better are discussed.

Keywords: Digital marketing, Digital perspectives, Social networks, Consumer behavior, Sustainability, Climate change

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1. Introduction

Despite the growing importance attached to digital marketing by organizations (Man, 2020) and the constant warnings about climate change and, in turn, the need to foster the adoption of sustainable behaviors by individuals (Intergovernmental Panel on Climate Change, 2022), there is still scarce research that addresses the use of digital marketing tools to promote sustainability. In this sense, the present study aims to contribute to this gap in the scientific community, as well as an opportunity for innovation and business strategy for the future.

The purpose of this study is to investigate the relationship between digital marketing, its tools and the presence of brands on social networks with the communication of sustainability online and thus test the proposed structural model. In this line of thought, research hypotheses were defined with the objective of defining the possible relationships between the constructs present in the study and measures were also defined that aim to assess the presence of brands on social networks, the use of digital marketing by organizations, the importance attributed to digital marketing tools and online sustainability communication.

For this study development, questionnaire surveys were used, where it was possible to obtain 423 participants for three months period, more specifically between January 28, 2022 and April 28, 2022. The obtained results allowed to test the structural model and to perform a path analysis which allowed to confirm the hypotheses under study, as well as to prove the model's adequacy to the data.

This article consists of six main sections. After the present introduction, the second section is dedicated to the literature review, which summarizes the contributions on digital marketing and its tools, social networks and the communication of sustainability. Subsequently, the third section presents the methodology of this study, section four consists of the analyses performed and section five presents the results obtained, as well as the discussion of them. The article ends with the conclusion, the main limitations, and suggestions for future research.

2. Literature review and research

In this section, the theoretical framework that supports the formulated research hypotheses and the relations between the constructs present in the structural model is summarized. Digital marketing strategies are increasingly relevant for brands and organizations to remain competitive among the market offer those consumers have available, in turn, the use of social networks is part of this strategy, as a space of relationship between the parties. Nevertheless, digital marketing and social networks should also be used for the development of sustainable communication aimed at fostering the adoption of sustainable behaviors by consumers.

2.1. Digital marketing and its tools

Digital marketing allows you to attract and interact with customers through digital platforms and thus retain them and increase sales (Kannan & Hongshuang, 2017), therefore, digital marketing can be presented as the use of digital technologies that allow the implementation of marketing strategies, thus improving the knowledge of organizations towards their audiences and better meet their needs (Chaffey & Smith, 2013).

Thus, digital marketing can be understood as “any and all company marketing actions directed at the online environment. This action may involve the purchase decision of a consumer on the internet, the dissemination of new products/services or even the strengthening of a brand's positioning on social networks” (Silva et al., 2020, p.66). In fact, the internet is an extremely powerful tool for brands and organizations, which influences prices, product distribution, and promotion strategies (Bala & Verma, 2018).

Digital marketing tools have been developed, as well as ways to measure the strategies applied by brands and organizations, such as the website, mobile marketing (e.g., apps, QR-codes, SMS), e-mail marketing (e.g., newsletter), social media, search engine marketing (e.g., web master tools, Google Ads), content marketing (e.g., white papers, videos, documents), marketing analytics (e.g., Google Analytics, Social Bakers, among others (Bala & Verma, 2018). In this sense, the following hypothesis was formulated:

Hypothesis 1: Organizations' use of digital marketing is estimated to be directly related to the importance placed on digital marketing tools.

2.2. Sustainability communication

Due to climate change, exploitation of limited natural resources, use of fossil fuels, among other aspects, an awareness of climate change and its effect on humans, the environment and ecosystems has developed, the continued use of fossil fuels and the risks posed by behaviors of the present generations will have in future generations. In this sense, the term sustainability is increasingly recurring and as such evokes some ambiguity. In this sense, it is important to present a definition of the concept for the present study.

The term sustainable derives from the Latin “sub-tenēre” and has been used in politics, technology, economics and ecology, as “the ability to achieve current goals without putting futures at risk” (Fabio & Peiró, 2018, p.1), so current generations must frame their development and growth, in a sustainable development considering three dimensions: the economic, the social and the environmental (United Nations, 2015).

Climate change has an increasing impact on human life, in fact there has been an increase in mortality and morbidity, cases of food and water diseases, animal and human diseases, including zoonoses (diseases transmitted to humans through animals), cholera and problems cardiovascular and respiratory events resulting from extreme heat events that have been felt more intensely (Intergovernmental Panel on Climate Change, 2022). Furthermore, the impacts of climate change also occur in ecosystems with the increase of heavy rainfall in some regions causing floods, increased drought in other regions, heat waves, cold or hurricanes (Stevens, et al., 2021), a multitude of extreme events that call into question the survival of humans and ecosystems, for example the increase in rainfall and flooding that allow the increase of climate-sensitive aquatic pathogens and toxic substances from harmful freshwater cyanobacteria, thus increasing the likelihood of new diseases and pandemics (Intergovernmental Panel on Climate Change, 2022).

In this sense, communicating sustainability and fostering the adoption of sustainable behaviors by individuals is increasingly pressing.

The communication of sustainability is relevant because it allows to contribute to the adoption of sustainable behaviors by individuals, in addition, it must contribute to improve the levels of knowledge and awareness of the subject, allowing individuals to access information, education, different points of view and news, in short, the possibility of an active participation of several stakeholders (Shahzalal & Hassan, 2019). This interaction is possible with digital marketing and presence on social networks by brands and organizations.

Based on what was mentioned above, the following research hypothesis was developed:

Hypothesis 2: Organizations' use of digital marketing is estimated to relate directly to online sustainability communication.

Although some authors argue that the use of digital marketing as a tool for fostering sustainability is an antithesis, since digital marketing, as previously presented, focuses on continuous consumption, in the sense of involving and disseminating new products or strengthening the brand in digital media, as opposed to sustainability advocates reuse, reduction of purchases and limits on non-renewable resources (e.g., Jones et al., 2008; Kemper & Ballantine, 2019; Lim, 2016). Nevertheless, digital marketing can contribute to a greater understanding of consumer behavior and persuade their attitudes, behaviors and beliefs directed towards the adoption of sustainable behaviors, or on the other hand, sustainability, product differentiation, access to conscious investors. environmentally and even greater commitment to employees at the environmental level (Diez-Martin et al., 2019), that is, they are two areas that worked together have much to offer each other and, above all, allow environmental awareness for all involved.

In this duality, new technologies affect companies, which drives them to new adaptations, innovations, means of production and ways to generate competitive value. In this sense, social networks play a relevant role, as they allow the possibility of any user to create, share and exchange information and thus a possibility of interaction between various groups such as companies, customers or stakeholders in general (Russo et al., 2021). This way the following hypothesis was formulated:

Hypothesis 2.1: Organizations' use of digital marketing is estimated to indirectly relate to online sustainability communication through the importance placed on digital marketing tools.

2.3. Social media

Brands and organizations quickly realized the importance that social networks occupy in defining their strategies and communicating with consumers, in fact, social networks are an open door to the world where brands and organizations can communicate and relate to millions of people, which entails unlimited market possibilities (Bala & Verma, 2018).

The data indicate, in April 2022, that around 58.7% of the world's population is using social networks, which is equivalent to 6.65 billion people who spend an average of two and a half hours a day on social networks, which is equivalent to 15% of each person's daily time (Data Reportal, 2022). This confirms the need for brands and organizations to be present on social networks since it is the space where consumers spend the most time. Thus, the following research hypothesis is proposed:

Hypothesis 3: Organizations' use of digital marketing is estimated to be directly related to their social media presence.

In fact, there is an increase in social networks and the need for brands and organizations to be present in these networks, thus increasing connectivity and interaction with consumers (Kieling et al., 2022), which also allows the development of strategies for the communication of sustainability, through actions on "sustainability education, generalized design, digital media and gamification concepts and methods" (Al-Mulla et al., 2022, p. 1). Thus, the following hypothesis will be tested:

Hypothesis 3.1: Organizations' use of digital marketing is estimated to be indirectly related to communicating sustainability online through organizations' social media presence.

3. Methodology

Based on conducted literature review and formulated research hypotheses, a structural model presented in figure 1 is proposed, which aims to clarify the relationships between the dimensions of the structural model.

3.1. Procedure and characterization of the participants

The study was conducted with a convenience sample, not probabilistic. Questionnaire surveys were made available exclusively online during the three-month period, more specifically between January 28, 2022 and April 28, 2022. As a result, the protocol is no longer available after the deadline set for data collection.

At first, the request for informed consent was submitted, which contained the purpose of the study, the voluntary nature of the participation, and the guarantee of confidentiality regarding the analysis of the data and the dissemination of results. Next, the questionnaire on the presence of brands on social networks was presented, followed by the questionnaire on the use of digital marketing by organizations, followed by the questionnaire on the importance attached to digital marketing tools, and the questionnaire on the continuous sustainability communication online and finally the sociodemographic questionnaire was presented.

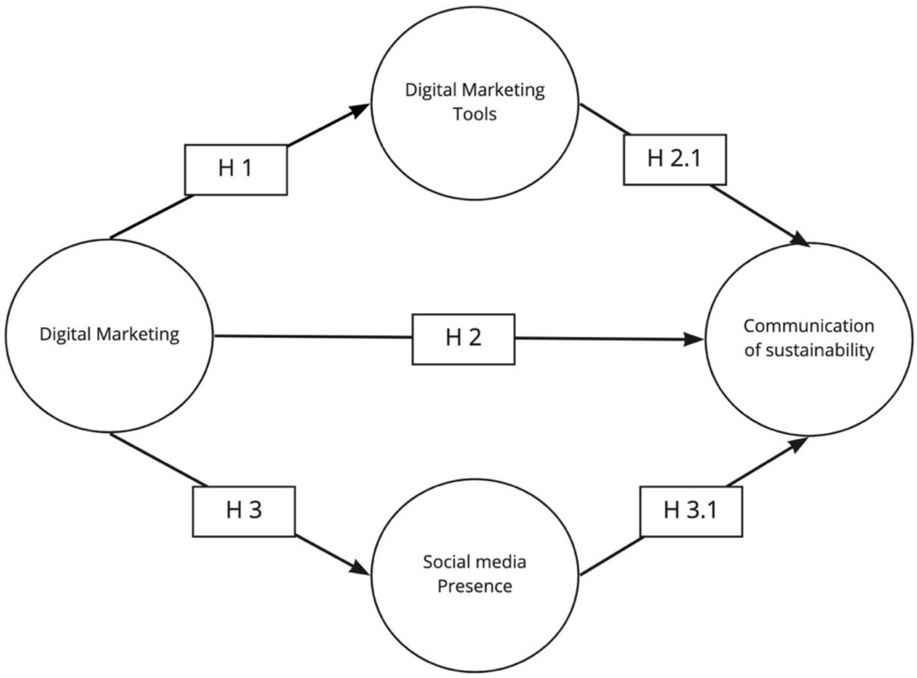

Figure 1 – Proposed Structural Model

Source: (Developed by the author, 2022)

The sample includes 423 participants, 149 (35.2%) men, 273 (64.5%) women and 1 (0.2%) participants of another gender. The age of the participants is between 18 and 73 years, with an average age of 42.74% (SD = 15.94%), 420 (99.3%) of Portuguese nationality, 2 (0.5%) of Brazilian nationality and 1 (0.2%) of Italian nationality. More concretely, according to the geographical regions of mainland Portugal, we can distribute the participants as follows: 174 (41.1%) are from the North region, 114 (27%) are from the Central region, 80 (18.9%) are from the Lisbon Metropolitan Area, 20 (4.7%) 9 are from the Alentejo region, 15 (3.5%) are from the Algarve region , 8 (1.9%) are from the Autonomous Region of the Azores, 5 (1.2%) are from the Autonomous Region of Madeira and 1 (0.2%) from the Abruzzo region of Italy. Regarding marital status 175 (41.4%) are married, 164 (38.8%)

are single, 36 (8.5%) are divorced, 36 (8.5%) are in a de facto union, 4 (0.9%) are separated, similarly 4 (0.9%) are widowed and 4 (0.9%) are in another level of civil commitment. Regarding education, 166 (39.2%) have a doctorate, 100 (23.6%) have a degree, 86 (20.3%) have a master's degree, 38 (9%) have a post-doctoral degree, 31 (7.3%) have a secondary degree, 1 (0.2%) have a specialization and, finally, 1 (0.2%) have a bachelor's degree.

3.2. Instruments

To measure the variables under study, the measures were structured based on the literature review presented previously. To assess the presence of brands on social networks, a scale consisting of four items (e.g., item 1 “Information exchange”) was constructed, answered on a Likert-type response scale, between 1 (strongly disagree) to 5 (strongly agree), which for the sample of the present study, presented an index of acceptable internal consistency, according to Cronbach's Alpha (α=.78) presented by Gliem and Gliem (2003). To evaluate the use of digital marketing by organizations, a scale consisting of four items was constructed (e.g., item 1 “Measuring digital marketing results is perceived as very important for the companies”), answered on a Likert-type response scale, between 1 (strongly disagree) to 5 (strongly agree), which for the sample of this study presented good internal consistency index (α=.86). To assess the importance attributed to digital marketing tools, a scale consisting of eight items (e.g., item 2 “Mobile Marketing (app, QR-codes, SMS)”) was constructed, answered on a Likert-type response scale, between 1 (very low) to 5 (very high), which for the sample of the present study, showed good internal consistency index (α=.81). To assess sustainability communication online, a scale consisting of six items was constructed (e.g., item 1 “Sustainability must be communicated through digital.”), answered on a Likert-type response scale, between 1 (strongly disagree) to 5 (strongly agree), which for the sample of the present study, presented a good internal consistency index (α=.88).

4. Analyses

Statistical analyses were performed using the Statistical Package for the Social Science (IBM SPSS), version 27.0 for Mac and Analysis of Moment Structures (AMOS), version 27.0 for Windows.

Table 1 shows the correlations between the variables under study, the internal consistency indices of the variables of the structural model, for the total sample (n=423), the mean values and the standard deviations. The magnitude of the relations indicates the presence of moderate relations ($.30 < r < .50$) and strong relations ($r >. 50$) (Cohen, 1988) between the variables, without the existence of multicollinearity, moreover, the correlations are statistically significant ($p < .001$), thus fulfilling the linearity assumption.

Table 1 – Correlations between study variables, mean values, standard deviations, and internal consistency indices (N=423)

	Digital marketing	**Sustainability communication**	**Social media**	**M**	**DP**	**α**
Digital Marketing	.	.	.	16.88	2.23	.86
Sustainability communication	.54***	.	.	24.89	3.59	.88
Social media	.40***	.42***	.	14.26	2.83	.78
Digital marketing tools	.51***	.52***	.50***	29.38	4.95	.81

*Note: *** p < .001 Source: (Developed by the author, 2022)*

As it is possible to verify two of the statistical assumptions inherent to structural equation models, namely: (1) absence of multicollinearity (Cohen, 1988); (2) the principle of linearity of relations (statistically significant correlations between the variables, Marôco, 2010); (3) minimum size of the sample between 100 and 200 participants (Schumacker & Lomax, 2010); (4) multivariate normality when sk=ku=0, (Mardia coefficient ≦ 3), which was not verified for the present sample, so when there is a violation of normality, the bootstrapping method with 500 samples and a confidence interval of 95% (e.g. Marôco, 2010; Gilson et al., 2013) and the absence of extreme outliers (Mahalanobis distance < .001), and in the case of the presence of outliers, the analyses were performed without them. The remaining assumptions were met.

Subsequently, multi-group confirmatory analyses were performed to assess the psychometric properties of the measures, and it was possible to verify the adjustment indices of each instrument in table 2.

To assess the fit indices of the measurement instruments, as well as the adjustment indices of the model, we used the following indices: Goodness of Fit Index (GFI) Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Akaike Information Criterion (AIC) (e.g., Gilson et al., 2013; Marôco, 2010).

Bootstrapping analyses were also performed with 500 samples, with a 95% confidence interval (Cheung & Lau, 2007; Marôco, 2010).

Considering the values presented in the table below (table 2), according to Marôco (2010), it is possible to affirm that the questionnaire that aims to evaluate the use of digital marketing by organizations and the questionnaire that aims to evaluate the communication of sustainability online, without outliers, present GFI and CFI values very good (≥.95) and good RMSEA values (.05 <RMSEA>.10), in turn, the questionnaire that aims to assess the presence on the social networks of brands, without outliers, presents good GFI and CFI values (.90<GFI<.95) and unacceptable RMSEA values (>.10), finally the questionnaire that aims to assess the importance attributed to Digital marketing tools, without outliers, have poor GFI values (.80<CFI<.90), CFI values bad (<.80) and unacceptable RMSEA values (>.10).

Table 2 – Adjustment indexes by measurement instrument (values without outliers)

	GFI	CFI	RMSEA	AIC
Digital Marketing	.99	.99	.10	25.45
Sustainability communication	.98	.99	.07	48.51
Social media	.95	.92	.23	62.19
Digital marketing tools	.84	.73	.16	331.86

*Note: *** p < .001 Source: (Developed by the author, 2022)*

These results made it possible to proceed to the path analysis, which was then performed, to assess whether the structural model presented a good fit to the data and whether the hypotheses defined later were verified, thus confirming the existence, or not, of the proposed relationships between the constructs.

The structural model showed a very good CFI value (≥.95; for the present sample .96), a good GFI value (.90<GFI<.95; for the present sample .90), an unacceptable RMSEA value (>.10; for the present sample .22) and an AIC value of 56.21. Although the RMSEA value is unacceptable, this index is sensitive to the sample size and the complexity of the model (Chen, 2007), in this line of thinking we decided to accept the model based on the CFI, since this is a more robust index (Cheung & Rensvold, 2002).

5. Presentation of results and discussion

The results of the confirmatory factor analyses performed show that the measurement models, without outliers, present a good adjustment to the data, although the instrument that aims to assess the importance attributed to digital marketing tools presents poor CFI values, however it was maintained in the structural model.

Regarding the structural model, a very good fit was found to the data, without outliers (CFI=.96). In a more concrete way, in figure 2, the standardized estimates among the constructs of the final structural model are presented.

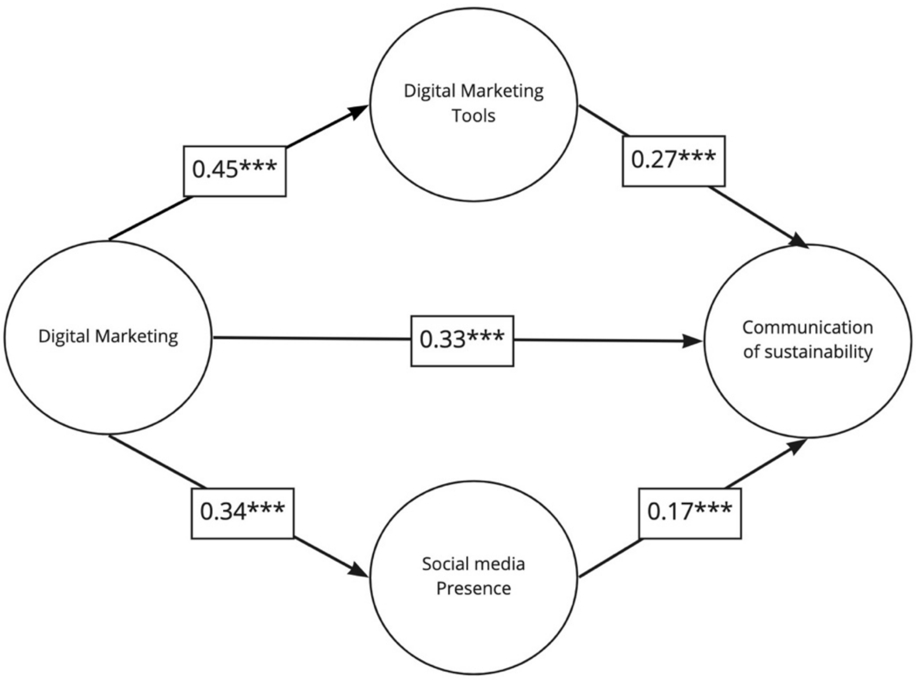

*Figure 2 – Final structural model without outliers (*** p < .001)*

Source: (Developed by the author, 2022)

The results point to statistically significant relationships between the constructs, and it is possible to verify that there is a direct relationship between the use of digital marketing by organizations and the importance attributed to digital marketing tools (β =.45); the use of digital marketing by organizations and the communication of sustainability online (β =.33) and there is also a direct relationship between the use of digital marketing by organizations and the presence on the social networks of brands (β =.34). Regarding indirect effects, it is possible to verify that digital marketing tools act as a mediator between digital marketing and online sustainability communication (β =.12) and that the presence on social networks is a mediator between the use of digital marketing by organizations and the online sustainability communication (β =.06).

In view of these results, it is possible to confirm all the hypotheses initially formulated, as shown in table 3.

Table 3 – Beta values (β) of the hypotheses

Hypotheses	**β**
Hypothesis 1	.45
Hypothesis 2	.33
Hypothesis 2.1	.12
Hypothesis 3	.34
Hypothesis 3.1	.06

Source: (Developed by the author, 2022)

Nevertheless, hypothesis 3.1 presents the lowest value (β =.06), which can be justified by the type of questions present in the questionnaire about the presence on social networks by organizations, since this questionnaire presents questions such as "The presence of brands on social networks allows... Information exchange" and the questions in the online sustainability communication questionnaire were of the type "Sustainability must be communicated through digital". Nevertheless, social networks allow the conception of individuals without social, geographical and cultural barriers, thus allowing various options of influence of individuals for the adoption of sustainable behaviors, through positive and negative reinforcements, adjustment of norms, feedback, sharing and pushing (Al- Mulla et al., 2022).

Currently, the environmental impacts of the human being are widely discussed, considering the economy, society and the environment, although it is necessary that the use of resources by current generations does not jeopardize the survival and resources for future generations. In this sense, the use of digital marketing allows a clear and direct interaction with all stakeholders, in the sense of, on the one hand, communicating the sustainable behaviors adopted by brands and organizations and, on the other hand, encouraging the adoption of sustainable behaviors by consumers and general population.

Digital marketing has been transforming the way organizations communicate and how they relate with their audiences, and sustainability is a challenge for organizations (Diez-Martin et al., 2019). In this sense, digital marketing can contribute to the understanding of consumer buying behavior, in the sense of influencing decision-making for more sustainable options, working to educate societies about the impacts of climate change at the present time and to make events more concrete futures and close to each one, develop digital marketing strategies on the sustainability of products and the need for reuse and transformation of them that can be measured and adjusted over time (e.g., marketing analytics) or even gaming with the aim of developing competences and environmental awareness through entertainment (Whittaker et al., 2021). On the other hand, sustainability can be seen to differentiate products or services and to improve the production chain (McDonagh & Prothero, 2014).

In short, the participants perceive that the use of marketing is directly related to the importance that digital marketing tools have, for example, it is perceived that the organization's website is very important in its digital marketing strategy. It was also perceived that "sustainability should be communicated through digital" with 357 participants agreeing or totally agreeing with this statement, corresponding to 84% of the participants, which is a relevant data for the communication of sustainability since consumers consider important this communication through this medium, which ends up giving it credibility.

Still, it is relevant to mention the use of greenwashing by organizations as an attempt to convey an image and communication of environmental responsibility that does not happen (Huang et al., 2022). Therefore, it is necessary that organizations have a clear and transparent communication, which allows a direct connection of their economic activities and environmental impacts in a measurable way without second interpretations, so that the various stakeholders do not feel deceived in some way (Stoknes & Rockström, 2018).

4. Conclusion

The purpose of this study was to investigate the relationship between digital marketing, its tools and the presence of brands on social networks with the communication of sustainability online and thus test the proposed structural model, and we can affirm that this purpose was achieved by the conceptual model presented a good fit to the data, in addition, the relationship between the constructs proved to be statistically significant despite the hypothesis 3.1, where it was estimated that the use of digital marketing by organizations is indirectly related to the communication of sustainability online through the presence on social networks by organizations has shown a low value (β =.06).

This study presents as theoretical implications the contribution to the growth of these research areas together and to reaffirm the possibility of using digital marketing to promote sustainability, because although it is controversial to use marketing to communicate and promote sustainability, this research showed that 84% of the participants agree or totally agree with communicating sustainability through digital marketing. From a practical point of view, it is possible to develop digital marketing strategies and campaigns that contribute to sustainability, such as used clothing donation campaigns or clothing recycling campaigns that turn into discounts for customers, on the one hand there is the recycling of clothes by brands and, on the other hand, encouraging consumption, enabling economic growth without consuming new resources.

The study has limitations that must be mentioned to frame the conclusions presented. One of the limitations is the lack of deepening of sustainable consumer behavior in relation to the variables studied, which would be important to explore in future studies.

It would be relevant to repeat the study with a population with low levels of education, because in the present sample 390 participants out of the total of 423 have higher education and therefore, redoing the study with a population with less education would allow an understanding of the influence that the level of education may have adopted from individuals' sustainable behavior and their perspective on sustainable communication. It was also pertinent to reapply the study by generational cohorts and understand the possibility of different views on the use of digital marketing in communication and promotion of sustainability. Finally, a study focused on the use of digital marketing to promote and influence sustainable behaviors, for example the role of digital influencers in sustainability.

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Online consumption habits: before and during the Covid-19 pandemic

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Abstract

The Covid-19 pandemic is already seen as the most transformative and challenging event in our memory. This atypical situation triggered new habits, forms of consumption and trends.

The present study aims to analyze the new online consumption habits resulting from the Covid-19 pandemic. For this purpose, a quantitative methodology is proposed. A questionnaire focusing on new online shopping habits and trends arising from the Covid-19 pandemic was applied, with 618 responses being obtained.

The study shows that, in fact, during the pandemic, consumers changed their consumption habits in terms of proportion, amount spent on online purchases and payment methods. There were also changes in the purchasing behavior of certain categories of products during the Covid-19 pandemic and, it is also noted that some of the trends arising from the pandemic are strongly influenced by sociodemographic characteristics.

This study proves to be relevant, mainly due to the relevance of understanding how the pandemic context can influence the way people live, behave, buy and develop new habits, which may not end during the pandemic. The digital environment becomes even more important to mitigate the effects of the Covid-19 crisis and, probably, we are witnessing the beginning of the digital era more pronounced than ever.

Keywords: Consumer behavior, online shopping, consumption trends, Covid-19 pandemic.

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1. Introduction

In December 2019, China warned about the outbreak of a new infectious disease, like pneumonia, which was renamed Covid-19. In January 2020, the disease began to spread to several countries, so the World Health Organization decided to declare an international emergency. In response to the uncontrollable spread around the world, sudden lockdowns and social distancing policies were established that affected the lives of thousands of people.

This conjuncture triggered new forms of consumption and trends, since consumption is contextual and the context in which we currently live is especially relevant, insofar as it was never perceived. Thus, this crisis provides an excellent opportunity for marketers to examine the interplay between personal and contextual factors. In fact, standardized and indisputable metrics and theories are now being critically questioned, since consumers are faced with a conjuncture of fear and uncertainty never experienced.

Since this is such a current and little explored topic, the literature is not conclusive about the changes in the online shopping behavior of the Portuguese as a result of the pandemic and, as a result, this research is oriented towards the following questions: “What are the online shopping habits before and during the Covid-19 pandemic and what are the main changes observed?” and “How did the Covid-1 9 pandemic trigger new trends and consumption habits?”.

Considering the questions that guide this investigation, the general objective is to analyze trends and new online consumption habits resulting from the Covid-19 pandemic.

The study is divided into 5 topics: the literature review, which contains the relevant concepts for the study, the methodology, where the methodological options that will shape the study objectives are clarified, the results, where it is intended to answer the questions of investigation and discussion of these and the conclusions of the study.

2. Literature Review

2.1. Consumer behavior

Consumer behavior can be defined as the study of how people, groups and organizations select, buy, use and dispose of products, services, ideas or experiences to satisfy their wants and needs (Kotler, 2012).

Narrowing this concept to the online environment, the authors consider that in the online purchase process, when consumers recognize the need to obtain a product or service, they access the Internet and look for necessary information related to the product they are looking for or, sometimes, they are attracted by information about products and services associated with the felt need (Malik & Guptha, 2013).

Also, according to Katawetawaraks and Wang (2013) there are 4 factors that lead consumers to buy online: convenience, available information, available quantity and time and cost savings.

2.2. Perceived ease of use

The relationship between perceived ease of use and consumer behavior is indicated in several lines of research (Luarn & Link, 2005; Hackbarth et al., 2003; Davis, 1989). Ryan and Rao (2008) measure perceived ease of use by being able to find information easily and becoming skilled, savvy and Internet knowledgeable.

2.3. Online purchase motivations

Purchasing motivations, in a simplistic way, can be hedonic or utilitarian. The hedonic dimension is related to joy, excitement for the purchase process itself and, in turn, the utilitarian dimension is related to the cognitive and non-emotional forum (Albayrak, Caber & Çomen, 2016; To, Liao & Lin, 2007).

Martínez-López *et al.* (2014) defined a set of relevant categories for the understanding of utilitarian motivations: assortment (refers to the adequate number of products available), economy (related to competitive prices and promotions), convenience (the ability to buy without leaving home 24 hours a day, 7 days a week), availability of information (since consumers cannot physically touch the product, relevant information must be made available), adaptability or customization (possibility of the consumer to purchase an exclusive product adapted to their needs), desire for control (related to the consumer's freedom to resume, modify or withdraw from a purchase), payment methods (refers to the consumer's freedom to choose the most advantageous payment method for him) and anonymity (the consumer's possibility to express themselves without necessarily having to identify themselves).

Instead, at the level of hedonic motivations, Arnold and Reynold (2003) suggested six broad categories of hedonic motivations: adventure shopping (motivated by stimulation, adventure, and the feeling of being in another world), social shopping (related to the pleasure of shopping with friends and family, socializing while shopping and bonding with others while shopping), reward shopping (related to relieving stress and moodiness and seen as a special treat), buying ideas (with the objective of following trends and seeing new products and innovations), the purchase of paper (refers to the pleasure that the consumer has in buying for others and the excitement and joy of finding the perfect gift for others) and, finally, the purchase of values (related to finding products at low prices – the so-called bargains, which gives the consumer the feeling of winning a game.

2.4. Online shopping experience

The online shopping experience refers to the process of acquiring products or services through the Internet (Alves, 2015).

In the context of online shopping, customer satisfaction is the result of the consumer's experience after going through all the stages of purchase and depends on the last shopping experiences at a particular company (Afsar *et al*., 2013).

In the research by Corbitt, Thanasankit and Yi (2003), people are more likely to shop on the Internet if they have a higher degree of trust in e-commerce and web usage experience.

There is a positive correlation between satisfaction with an online purchase and the frequency of purchases, which is the most important factor for making a future purchase (Gounaris et al., 2010). The experience goes well when it meets the consumer's expectations, which gives him a sense of satisfaction (Wu & Hsu, 2015).

2.5. Risk perception

The perception of risk is everything that the consumer considers as uncertain in online transactions (Kim, Ferrin & Rao, 2008). Thus, the risk is understood as painful, as it generates feelings of anxiety and discomfort, resulting from the perception of this risk leading to a possible loss (Souza, Mattosinho & Costa, 2009). Its correlation with purchase intention is quite significant (Kolsaker *et al*., 2004). Kim, Ferrin and Rao (2008), through an empirical study, demonstrated that consumer trust directly and indirectly affects their purchase intention. Thus, we perceive that consumer confidence has a strong positive effect on purchase intention and, in turn, a strong negative effect on consumer risk perception. This study also shows that perceived risk reduces purchase intention, while perceived benefit increases purchase intention.

A greater perception of risk is associated with online purchases compared to traditional purchases, since in traditional purchases the consumer can touch, feel and try the product and decide whether or not to buy, reducing the level of perceived risk (Kim, Ferrin & Rao, 2008). Corbitt, Thanasankite and Yi (2003), analyzed the main categories related to perceived risk – performance risk, financial risk, social risk, psychological risk and time-wasting risk. According to the authors, participation in e-commerce is more influenced by motivations such as curiosity, fun and convenience and less by perceived risk.

2.6. Changes in online shopping behavior due to the Covid-19 pandemic

All over the world, societies are closed and citizens are obliged to respect social distancing. The omnipresence of such a threat, the fear and uncertainty that accompanies it leads to new trends and forms of consumption, people are more suspicious and less susceptible (Donthu & Gustafsson, 2020).

Although consumption is habitual, it is also contextual. And the context is relevant when we live. According to Sheth (2020), there are four main contexts that govern or disrupt consumption habits. The first is the change in the social context through life events, such as getting married or moving to another city. The second context is technology, since, as more innovative technologies emerge, they break old habits. The third is rules and regulations, with special emphasis on those related to public and shared spaces, such as the consumption of alcohol by minors. The fourth and least predictable context is natural disasters, such as earthquakes, hurricanes and pandemics, including the Covid-19 pandemic that we are experiencing today.

As social beings, isolation tends to alter our behaviors and feelings of loneliness, worse cognitive performance, negativity, sensitivity are certain natural manifestations (Campbell, 2020).

There is also an increase in more positive behaviors, such as developing new skills, taking care of the house, reading more and concern for the environment, and an increase in more altruistic behaviors, such as buying food for the most vulnerable people. (Donthu & Gustafsson, 2020).

A survey carried out by Ageas Portugal and Eurogroup Consulting Portugal, indicates that the consumption habits of 45% of the Portuguese have changed during the pandemic, and the higher the income, the smaller the changes in consumption (Jornal de Negócios, 2021).

Likewise, Kotler (2020) predicts major changes, since the period of deprivation and anxiety in which we live will usher in new consumer attitudes and behaviors that will change the nature of current capitalism. Citizens will re-examine what they consume, how much they consume and how they are influenced by class and inequality.

Consumer decision making tends to be less rational during crises. In fact, buying is driven purely by interests and emotions such as anger, fear and anxiety. The consumer is trying to control the situation and minimize risk and physical and emotional suffering. There is enormous uncertainty and people are afraid of regretting not buying something and this possible fear leads to impulse purchases and large quantities of food, hygiene products and medicines (Grohol, 2020; Guardian, 2020, *cit in*, He & Harris, 2020; Novemsky, 2020).

Donthu & Gustafsson (2020) summarized consumer behavior during the pandemic crisis in three phases. The first is to react, such as accumulating and rejecting; the second is coping (e.g. maintaining social connection, interest in new activities and a different view of brands) and lastly, long-term adaptation (e.g. potentially transformative changes in consumption and individual and social identity).

Still within this theme, Sheth (2020) summarized eight immediate effects of the Covid-19 pandemic on consumption and consumer behavior:

- *Accumulation*: consumers are stocking up on essential products for daily consumption, such as toilet paper, bread, meat and disinfection and cleaning products. Accumulation is a common reaction to managing uncertainty;
- *Improvisation*: Consumers learn to improvise when there are constraints. Covid-19 has led to innovative practices such as location-focused alternatives such as online education;
- *Repressed demand*: in times of crisis and uncertainty, the general tendency is to postpone the purchase and consumption of durable and high-cost products, such as automobiles;
- *Adoption of digital technology*: out of sheer necessity, consumers use technology to keep in touch with friends, work, study and even have appointments. The internet is a rich medium and has a global reach;
- *Shop at home*: has implications for impulse consumption and massively increases online shopping and home delivery services, such as Netflix;
- *Limits to working life*: consumers are "prisoners" of their own home, with limited space and, as a consequence, there is a blurring of the boundaries between work and home;
- *Online meetings with friends and family*: option found to ensure they are well or to share stories and experiences;
- *Discovery of talents*: with a flexible schedule at home, consumers try recipes and are interested in new activities, many even go from consumers to producers.

With time flexibility, but location rigidity, consumers tend to adopt technologies to facilitate work, study and consumption more conveniently. The adoption of digital technology will modify existing consumption habits (Sheth, 2020). Consumers were already making online purchases more and more regularly before the pandemic and it only accelerated the structural shift from consumer culture to the online hemisphere (Kim, 2020). A survey carried out by Ageas Portugal and Eurogroup Consulting Portugal proves this, as more than half of the respondents revealed that they had made more purchases online (Jornal de Negócios, 2021). In this perspective and according to a survey, about 52% of consumers avoid going to physical shopping and crowded areas (Bhatti et al., 2020). Also according to data from SIBS Analytics, in January 2021, there was a 37% increase in online purchases compared to the same period in 2020 and the MB Way stands out as one of the preferred payment methods for the Portuguese (increased by 269% in the context of e-commerce and 234% in physical stores) - both consumers and companies (Marketeer, 2021).

Another consequence of confinement is the extreme increase in the use of social networks, especially as it is the main means of contact and socialization with other people in a situation of isolation and to exchange ideas and opinions (Naeem & Ozuem, 2021; Donthu & Gustafsson, 2020; Naeem, 2020).

In the view of He & Harris (2020), there is likely to be a significant shift towards responsible and pro-social consumption, in the sense that consumers consciously reflect on how to consume and make product/brand choices to be more responsible for themselves, others, society and the environment. The issue of buying domestic versus foreign products is not just a matter of quality, availability and cost, but is now seen as an issue related to consumer ethics. Also a study by Dangelico, Schiaroli and Fraccascia (2022), about the buying behavior of Italian consumers, revealed that this catastrophic and unexpected event led consumers to be more concerned about environmental problems, more aware of individual impacts, and to behave more sustainably.

In short, most habits are expected to return to normal. However, it is inevitable that some habits will disappear because the consumer has discovered a more convenient and affordable alternative. Consumers may find it easier to work from home, learn from home and shop at home. What was an alternative has become an existing habit and the existing habit becomes peripheral. There is a universal law of consumer behavior, which is quite relevant in this reflection. When an existing habit or need is abandoned, it always comes back as a recreation or hobby, examples are fishing, hunting and even bread making. It will be interesting to see that existing habits abandoned will come back as hobbies (Sheth, 2020).

3. Methodology

3.1. Data collection instrument

The questionnaire was the data collection technique chosen to understand changes in online shopping behavior due to the Covid-19 pandemic and new habits and trends.

The statistical procedures performed were descriptive and inferential, using the IBM SPSS software, version 27. In order to understand which statistical tests are most appropriate, the asymmetry and kurtosis of all questions were analyzed and the Kolmogorov-Smirnov Test was performed.

The questionnaire is organized into four parts as shown in table 1.

Table 1 – Structure of the questionnaire

	Questions	Scale	Authors, year
Online shopping habits	Understand if the first online purchase occurred during the Covid-19 pandemic.		
	Frequency of online purchases made before and during the Covid-19 pandemic.	Scale of Participation in E-commerce	Corbitt, Thanasankit & Yi, 2003.
	Proportion of online purchases in relation to total purchases made before and during the Covid-19 pandemic.	Scale of Participation in E-commerce	Corbitt, Thanasankit & Yi, 2003.
	Amount spent on online purchases before and during the Covid-19 pandemic.		
	Most used payment methods before and during the Covid-19 pandemic.		
Relationship with new technologies	Internet experience (years).	Internet Consumer Experience Scale	Corbitt, Thanasankit & Yi, 2003.
	Number of hours of weekly Internet use.		Corbitt, Thanasankit & Yi, 2003.
	Ease of use of the Internet.	Ease of Use Perception Scale	Ryan & Rao, 2008.
	Hedonic purchase motivations.	Hedonic Purchase Motivations Scale	Arnold & Reynold, 2003.
	Utility purchase motivations.	Utility Purchase Motivation Scale	Martínez-López *et al.,* 2014.
	Risk perception of online shopping.	Risk Perception Scale	Corbitt, Thanasankit & Yi, 2003.
Issues related to the Covid-19 pandemic	Variation of online purchase of different product categories.		
	Trends arising from the Covid-19 pandemic:		
	a) Accumulation;		Sheth, 2020; Grohol,2020; Guardian,2020; Novembsky,2020.
	b) Improvisation;		Sheth, 2020.
	c) Repressed demand;		Sheth, 2020.
	d) Adoption of digital technology;		Sheth, 2020.
	e) Shop at home;		Sheth, 2020.
	f) Limits to working life		Sheth, 2020.
	g) Online meetings with friends and family;		Sheth, 2020; Donthu & Gustafsson, 2020.
	h) Discovery of talents;		Sheth, 2020; Donthu & Gustafsson, 2020; He & Harris, 2020.
	i) Responsible and pro-social consumption.		He & Harris, 2020.
Sociodemographic issues	Age		
	Gender		
	Civil status		
	Professional occupation		
	Monthly income		
	Completed education level		

Source: Self elaboration.

3.2. Sample

The questionnaire was answered by 618 individuals, the sample being considered for convenience, since the individuals who participated in the study are within reach of the researchers and willing to answer the questionnaire. The universe of reference was the respondents who responded affirmatively to having already made online purchases. Regarding demographic criteria, only being of legal age.

The characterization of the sample is described in table 2.

Table 2 – Demographic characteristics of the sample

Gender	**Masculine**	**Feminine**	**Other / No answer**				
	N=273; 44,2%	N=245; 55,8%	N=0; 0%				
Age	**18 – 24 years**	**25 – 34 years**	**35 – 44 years**	**45 – 54 years**	**55 – 64 years**	**More than 64 years**	
	N=354; 57,3%	N=126; 20,4%	N=69; 11,2%	N=50; 8,1%	N=16; 2,6%	N=3, 0,5%	
Monthly income	**No income**	**Less than 665€**	**665 – 1000€**	**1001 – 1400€**	**1.401 – 1800€**	**More than 1800€**	
	N=191, 30,9%	N=94, 15,2%	N=164; 26,5%	N=87; 14,1%	N=33; 5,3%	N=49; 7,9%	
Professional Occupation	**Student**	**Student worker**	**Employed for someone else**	**Self-employed**	**Unemployed**	**Retired / pensioner**	
	N=193; 31,2%	N=116; 18,8%	N=228; 36,9%	N=44, 7,1%	N=32; 5,2%	N=5, 0,8%	
Civil Status	**Unmarried**	**In a relationship**	**De facto union / married**	**Divorced**	**Widower**		
	N=322; 52,1%	N=194; 24,1%	N=129; 20,9%	N=17; 2,8%	N=1; 0,2%		
Completed education level	**Up to the 4th. year**	**Until the 9th. year**	**Up to the 12th. year**	**Professional Course**	**Graduation**	**Master's degree**	**Doctorate**
	N=1; 0,2%	N=10; 1,6%	N=150; 24,3%	N=38; 6,1%	N=313; 50,6%	N=102; 16,5%	N=4; 0,6%

Source: Self elaboration.

3.3. Reliability

It is important to consider the internal consistency before proceeding with the analysis itself, so the α Cronbach presented are quite satisfactory, as shown in Table 3.

Table 3 – Analysis of the internal consistency of the questionnaire scales

	Alpha de Cronbach
Perceived ease of use	,896
Hedonic purchase motivations	,890
Utilitary purchase motivations	,951
Risk perception	,816
Covid-19 pandemic trends	,821

Source: Self elaboration.

4. Results and answer to the research questions of the study

The data analyzed allowed us to answer the research questions of the study, which are presented below.

1. **What are the online shopping habits before and during the Covid-19 pandemic and what are the main changes observed?**

The study showed that most respondents were already shopping online before the pandemic (90,8%). There was an increase in the number of online purchases, the proportion of online purchases in relation to total purchases and the amount spent on online purchases when comparing the period before the pandemic and during the pandemic, as can be seen in table 4, where they are the answers, most given by the respondents are present.

Table 4 – Number of online purchases, proportion of online purchases and amount spent on online purchases before and during the pandemic

	Before the pandemic	During the pandemic	Comparison between before and during the pandemic
Number of online purchases	1 time (38,2%); 2-3 times (29,8)	2-3 times (35,1%); more than 5 times (24,4%)	Increase in the number of online purchases (49,7%)
Proportion of online purchases in relation to total purchases	1-5% (47,6%)	1-5% (24,1%); 5-10% (25,9%); 10-20% (20,6%); more than 20% (23,9%)	Increase in the proportion of online purchases in relation to total purchases (56,8%)
Amount spent on online purchases	10-30€ (39%)	30-60€ (31,4%)	Increase in the amount spent on online purchases (56,8%)

Source: Self elaboration.

The Pearson Correlations associated with these variables were also analyzed and there was a greater presence of hedonic motivations in the variables during the pandemic and only these correlates with trends arising from the pandemic, as can be seen in Table 5.

In addition, it was also confirmed that there are significant differences in terms of age, gender and income with regard to the number, proportion and amount spent on online purchases.

Table 5 – Pearson's correlation between variables

Criteria Used	H0= R=0 (There is no correlation) ; H1= R ≠ 0 (There is Correlation)Sig < 0,05 Reject H0			
Number of online purchases				
	Before the pandemic		**During the pandemic**	
Risk Perception	-,095*	As the number of online purchases increases, the risk perception decreases and vice versa.	-,089*	As the number of online purchases increases, the risk perception decreases and vice versa.
Hedonic Motivations			,196***	As the number of online purchases increases, hedonic motivations also increase and vice versa.
Utilitarian Motivations	,150***	As the number of online purchases increases, utilitarian motivations also increase and vice versa.	,276***	As the number of online purchases increases, utilitarian motivations also increase and vice versa.
Trends arising from the Covid-19 pandemic			,254***	As the number of online purchases increases, trends arising from the Covid-19 pandemic also increase and vice versa.
Income	,087*	As the number of online purchases increases, the income also increases and vice versa.	,086*	As the number of online purchases increases, the income also increases and vice versa.
Proportion of online purchases in relation to total purchases				
	Before the pandemic		**During the pandemic**	
Perceived ease of use	,174***	As the proportion of purchases increases, the perceived ease of use also increases, and vice versa.	,180***	As the proportion of purchases increases, the perceived ease of use also increases, and vice versa.
Risk Perception	-,139***	As the proportion of purchases increases, the perception of risk decreases and vice versa.	-,182***	As the proportion of purchases increases, the perception of risk decreases and vice versa.
Hedonic Motivations	,158***	As the proportion of purchases increases, hedonic motivations also increase and vice versa.	,261***	As the proportion of purchases increases, hedonic motivations also increase and vice versa.
Utilitarian Motivations	,260***	As the proportion of purchases increases, utilitarian motivations also increase and vice versa.	,258***	As the proportion of purchases increases, utilitarian motivations also increase and vice versa.
Trends arising from the Covid-19 pandemic			,336***	As the proportion of purchases increases, trends arising from the pandemic also increase and vice versa.
Age	-,089*	As the proportion of purchases increases, age decreases and vice versa.		
Income			-,114**	As the proportion of purchases increases, income decreases and vice versa.
Amount spent on online purchases				
Perceived ease of use	,095*	As the amount spent on online purchases increases, perceived ease of use also increases and vice versa.	,091*	As the amount spent on online purchases increases, perceived ease of use also increases and vice versa.
Risk Perception			-,0083*	As the amount spent on online purchases increases, the perception of risk decreases and vice versa.

Amount spent on online purchases				
Hedonic Motivations			,120***	As the amount spent on online purchases increases, hedonic motivations also increase and vice versa.
Trends arising from the Covid-19 pandemic			,255***	As the amount spent on online purchases increases, trends arising from the pandemic also increase and vice versa.
Income	,249***	As the amount spent on online purchases increases, income also increases and vice versa.	,237***	
*The correlation is significant at the level 0,05 (2-tailed) ** The correlation is significant at the level 0,01 (2-tailed) *** The correlation is significant at the level < 0,001 (2-tailed)				

Source: Self elaboration.

Regarding the number of online purchases, it is considered that there are significant differences between genders both before and during the pandemic, which means that the consumer's gender influences the number of times they buy online.

As for the proportion of online purchases, it appears that there are significant differences between ages and genders. In terms of age, there are significant differences both before and during the pandemic, and the difference between young people (from 18 to 34 years old) and older people (55 or more years old) stands out, in turn, in terms of gender. up just before the pandemic. We can see that both age and gender influence the proportion of consumer purchases online.

Finally, in terms of the amount spent on online purchases, there are significant differences between age and income, especially if we compare the group with no/low income (less than 665€) with medium income (between 665€ and €1400€) and high income (over 1400€), and gender both before and during the pandemic, which means that the age, income and gender of the consumer influence the amount they spend on online purchases. The data can be seen in table 6.

Table 6 – Comparison of the sample by age, income and gender in terms of number, proportion and amount spent on online shopping

Criteria Used		Ho= u1=u2 (There are no significant differences between groups); H1: u1≠u2 (There are significant differences between groups); Sig < 0,05 Reject H0.					
		Age		**Income**		**Gender**	
		Z	*p*	Z	*P*	Z	*p*
Number of online purchases	Before the pandemic	1,798	,111	1,293	,293	,038	,048
	During the pandemic	,753	,584	1,592	,160	1,900	,049
Proportion of online purchases in relation to total purchases	Before the pandemic	3,887	,002	,381	,862	1,817	,005
	During the pandemic	2,901	,013	,631	,676	,097	,470
Amount spent on online purchases	Before the pandemic	6,287	<,001	8,644	<,001	13,725	<,001
	During the pandemic	2,557	,027	9,254	<,001	13,641	,024

Source: Self elaboration.

Regarding the payment methods used before and during the pandemic, before the pandemic, the ATM (46,4%) and the credit/debit card (47,4%) stand out. In turn, during the pandemic, the most used methods are the credit/debit card (47,6%) and the MB Way (41,6%)

The main changes observed when comparing the period before the pandemic with that during the pandemic are the substantial decrease in the use of ATMs and cash on delivery. In turn, there is a great growth in the use of the MB Way. The data can be seen in table 7.

Table 7 – Description of payment methods used before and during the Covid-19 pandemic

	Before the pandemic	**During the pandemic**
Paypal	N=136; 22%	N=144; 23,3%
ATM	N=287, 46,4%	N=230, 37,2%
Credit/devit card	N=293, 47,4%	N=294, 47,6%
Against reimbursement	N=25, 4%	N=16, 2,6%
Bank transfer	N=97, 15,7%	N=98, 15,9%
MB Way	N=198, 32%	N=257, 41,6%

Source: Self elaboration.

Finally, when analyzing online shopping behaviors during the pandemic of different categories of products, it is noted that the categories whose respondents began to buy more frequently were home meals (47,1%), fashion (35,6 %), formation (31,9%), footwear and accessories (29,4%), health and beauty (26,5%) and technology (25,1%). As for the remaining sectors, there was also an increase, but with a lower incidence.

In turn, the sectors whose respondents began to buy less frequently during the pandemic were travel/stay (17,6%), leisure/culture/tickets (16,3%) and fashion (15,7%).

As for the sectors whose buying habits have not changed, we highlight cars/car accessories (72,2%), toys (70,4%), home appliances (68,8%), hypermarkets (65,2%) and of home/decoration and garden (63,8%).

In terms of the sectors whose respondents started to buy exclusively during the pandemic, formation (9,9%), fashion (9,5%) and home meals (9,4%) stand out.

Regarding the sectors whose respondents stopped buying exclusively during the pandemic, travel/stay (32,4%) and leisure/culture/tickets (17%) stand out.

The data can be seen in table 8.

Table 8 – Characterization of the purchasing behavior of different product categories during the Covid-19 pandemic

	Started buying more often	Started buying less often	Buying habits have not changed	Started to buy exclusively during the pandemic	Stopped buying exclusively during the pandemic
Travel/stay	N=34; 5,5%	N=109; 17,6%	N=271; 43,9%	N=4; 0,6%	N=200; 32,4%
Hypermarkets	N=134; 21,7%	N=38; 6,1%	N=403; 65,2%	N=25; 4%	N=18; 2,9%
Home/decoration/ garden	N=92; 14,9%	N=67; 10,8%	N=394; 63,8;	N=25; 4%	N=40; 6,5%
Home appliances	N=62; 10%	N=62; 10%	N=425; 68,8%	N=28; 4,5%	N=41; 6,6%
Technology	N=155; 25,1%	N=45; 7,3%	N=346; 56%	N=49; 7,9%	N=23; 3,7%
Formation	N=197; 31,9%	N=41; 6,6%	N=291; 47,1%	N=61, 9,9%	N=28; 4,5%
Car/car accessories	N=36; 5,8%	N=71; 11,5%	N=446; 72,2%	N=10; 1,6%	N=55; 8,9%
Mobile devices/accessories	N=132; 21,4%	N=57; 9,2%	N=357; 57,8%	N=34; 5,5%	N=38; 6,1%
Sport	N=143; 23,1%	N=68, 11%	N=316; 51,1%	N=43; 7%	N=48; 7,8%
Leisure/culture/ tickets	N=74; 12%	N=101; 16,3%	N=307; 49,7%	N=31; 5%	N=105; 17%
Fashion	N=220; 35,6%	N=97; 15,7%	N=211; 34,1%	N=59; 9,5%	N=31; 5%
Footwear and accessories	N=182; 29,4%	N=99; 16%	N=248; 40,1%	N=40; 6,5%	N=39; 6,3%
Home meals	N=291; 47,1%	N=36; 5,8%	N=214; 34,6%	N=58; 9,4%	N=19; 3,1%
Toys	N=41; 6,6%	N=77; 12,5%	N=435; 70,4%	N=22; 3,6%	N=43; 7%
Health and beauty	N=164; 26,5%	N=56; 9,1%	N=335; 54,2%	N=36; 5,8%	N=27; 4,4

Source: Self elaboration.

When analyzing the changes in the number of online purchases during the pandemic, there are significant differences in the categories of hypermarket, home/decor/garden products, technology, formation, fashion, footwear and accessories, home meals, toys and health and beauty.

As for changes in the proportion of online purchases made during the pandemic, the significant differences occur in the same categories mentioned above, minus tech and toys.

In turn, at the level of the amount spent on online purchases during the pandemic, the differences occur in the same categories mentioned above and in mobile devices and accessories.

The data can be seen in table 9.

Table 9 – Comparison of the sample by product category in terms of changes in the number, proportion and amount spent on online purchases during the pandemic

Criteria Used	Ho= u1=u2 (There are no significant differences between groups); H1: u1≠u2 (There are significant differences between groups); Sig < 0,05 Reject H0.					
	Changes to the number of times online purchases		**Changes in the proportion of online purchases**		**Changes in the amount spent on online purchases**	
	Z	*p*	Z	*p*	Z	*p*
Hypermarksts	12,739	<,001	7,503	<,001	10,173	<,001
Home/decoration/garden	5,495	,004	4,626	,010	8,417	<,001
Technology	5,853	,003	2,825	,060	6,349	,002
Formation	4,148	,016	4,473	,012	3,328	,037
Mobile devices/accessories	2,979	,052	1,053	,350	3,313	,037
Sport	5,263	,005	3,591	,028	3,023	,049
Fashion	15,737	<,001	10,707	<,001	10,293	<,001
Footwear and accessories	11,445	<,001	8,884	<,001	8,699	<,001
Home meals	11,377	<,001	6,140	,002	7,922	<,001
Toys	3,800	,023	2,034	,132	3,988	,019
Health and beauty	12,813	<,001	12,506	<,001	8,784	<,001

Source: Self elaboration.

Still within the product categories, it sought to verify whether sociodemographic variables influenced the purchasing habits of product categories during the pandemic.

It was observed that age influences shopping habits during the pandemic in the hypermarket and toys categories. In turn, income influences purchasing habits in the categories of technology, fashion and footwear and accessories and, finally, gender influences purchasing habits in the categories of home appliances, technology, cars and car accessories, mobile devices and accessories, fashion and health and beauty.

The data can be seen in table 10.

Table 10 – Influence of sociodemographic characteristics on online shopping habits of different product categories during the pandemic

Criteria Used	Ho= Are independent; H1= Are not independent; Sig < 0,05 Reject H0.					
	Changes to the number of times online purchases		**Changes in the proportion of online purchases**		**Changes in the amount spent on online purchases**	
	Z	*p*	Z	*p*	Z	*p*
Hypermarksts	-2,235	,026	-1,536	,128	,355	,723
Home appliances	-,961	,337	-1,549	,122	-3,143	,002
Technology	-1,585	,114	-2,918	,004	-4,822	<,001
Cars and car accessories	,837	,403	,710	,478	-2,574	,010
Mobile devices/accessories	,196	,844	,362	,717	-4,068	<,001
Fashion	2,136	,033	3,280	,001	3,474	<,001
Footwear and accessories	1,033	,302	2,166	,031	1,172	,242
Toys	-2,802	,005	-1,634	,101	-1,307	,192
Health and beauty	,871	,384	1,848	0,65	3,790	<,001

Source: Self elaboration.

It was also considered relevant to understand the influence of risk perception and hedonic and utilitarian motivations in the purchase of certain categories of products during the pandemic.

It was found that the perception of risk influences the purchase of products in the technology category.

It is observed that hedonic motivations influence purchases in the categories of home/decoration/garden products, mobile devices and accessories, fashion, footwear and accessories, home meals and health and beauty during the pandemic.

In turn, utilitarian motivations influence purchases in the travel/stay and health and beauty categories.

The data are presented in table 11.

Table 11 – Influence of of risk perception and hedonic and utilitarian motivations on online shopping habits of different product categories during the pandemic

Criteria Used	Ho= Are independent; H1= Are not independent; Sig < 0,05 Reject H0.					
	Risk perception		**Hedonic motivations**		**Utilitarian motivations**	
	Z	*p*	Z	*p*	Z	*p*
Stay/travel	-8,720	,384	,228	,820	2,996	,003
Home/decoration/garden	1,293	,197	-3,000	,003	,135	,893
Technology	2,073	,039	-1,772	,077	-1,798	,073
Mobile devices/accessories	-1,145	,885	-2,665	,008	-1,277	,202
Fashion	-,369	,712	-3,863	<,001	-1,004	,316
Footwear and accessories	-,303	,762	-3,795	<,001	-1,164	,245
Health and beauty	,680	,497	-4,421	<,001	-3,005	,003

Source: Self elaboration.

Finally, we tried to understand if at the level of product categories their indicators of constructs and ideas and there are was an association between 3 groups. The first group related to daily life at home and routine (hypermarket, home/decor/garden products, home appliances and technology). The second group most related to personal care and image (fashion, footwear and accessories and health and beauty) and, finally, the third group, probably the most affected during the pandemic, which includes services more related to leisure and tourism and products with higher monetary value (travel/stay, leisure/culture/tickets, cars and car accessories). The data can be seen in table 12.

Table 12 – Indicators of constructs and ideas in product categories

Criteria Used	Teste KMO and Barlett: ,903 Aprox. Chi-square: 3769,435 GI: 105 p: ,000		
	Group 1	**Group 2**	**Group 3**
Stay/travel			,721
Hypermarkets	,716		
Home/decoration/garden	,655		
Home appliances	,616		
Technology	,660		
Car and car acessories			,656
Fashion		,067	
Leisure/culture/tickets			,662
Footwear and accessories		,836	
Healthy and beauty		,714	

Source: Self elaboration.

2. How did the Covid-1 9 pandemic trigger new trends and consumption habits?

Regarding the new trends arising from the Covid-19 Pandemic, the average value is 4,35, which means that it is between "I neither agree nor disagree" and "I partially agree".

However, there are higher and lower values than the average value, as can be seen in table 13.

We tried to explain the trends arising from the pandemic, through a linear regression and it was found that 37,8% of the total variable of trends arising from the pandemic is explained by the independent variables present in the model. It appears that the model is significant, however, only the variables proportion of online purchases during the pandemic, years of Internet use, hedonic motivations, utilitarian motivations, risk perception and gender significantly affect the variable trends arising from the pandemic.

It is also verified that the variables that present the greatest relative contribution to the explanation of the trends arising from the pandemic are firstly, hedonic motivations, followed by risk perception and utilitarian motivations.

The results can be seen in table 14.

Table 13 – Description of trends arising from the pandemic

	Average	Standard deviation	
Covid-19 pandemic trends	**4,35**	**1,04**	**Between "neither agree nor disagree" and "partly agree".**
I have accumulated products I do not need to manage uncertainty.	5,12	1,52	Between "partially agree" and “agree"
I adapted well to the restrictions and improvised new ways to continue with my routine.	2,39	1,74	Between "disagree" and "partially disagree"
I postponed the purchase of more expensive products.	4,50	1,90	Between "neither agree nor disagree" and "partly agree".
I used new technologies to keep in touch with friends and family.	6,07	1,38	Between "agree" and "strongly agree".
I feel like I bought more on impulse.	3,21	2,00	Between "somewhat disagree" and "neither agree nor disagree".
I bought more online.	4,94	1,98	Between "neither agree nor disagree" and "partly agree".
Ordered more home deliveries.	5,12	2,02	Between "partially agree" and “agree".
I could not draw the line between my personal and professional life.	3,64	1,94	Between "somewhat disagree" and "neither agree nor disagree".
I discovered new talents and got interested in new activities.	4,24	1,85	Between "neither agree nor disagree" and "partly agree".
I reflected more on the importance of buying national products.	4,49	1,88	Between "neither agree nor disagree" and "partly agree".
I bought more national products.	4,21	1,93	Between "neither agree nor disagree" and "partly agree".
I reflected more on the social responsibility of brands.	4,49	1,89	Between "neither agree nor disagree" and "partly agree".
I bought more products from socially responsible brands.	4,16	1,89	Between "neither agree nor disagree" and "partly agree".

Source: Self elaboration.

Table 14 – Explanation of the dependent variable: Trends arising from the pandemic

	B	SE B	β	T	*p*
Proportion of online shopping during the pandemic	,143	,060	,168	2,372	,018
Years of Internet use	,359	,170	,069	2,114	,035
Hedonic motivations	,237	,030	,299	7,907	<,001
Utilitarian motivations	,216	,041	,255	5,239	<,001
Risk perception	,162	,029	,189	5,632	<,001
Gender	-,201	,074	-,096	-2,736	,006
Note: r=,632; r2=,400; r2 adjusted=,378 (p= <,001)					

Source: Self elaboration

Finally, we sought to understand whether the trends arising from the Covid-19 pandemic were being influenced by sociodemographic variables such as age, income and gender. It can be noted that sociodemographic variables influence many of the trends mentioned:

- Deferring the purchase of more expensive products is influenced by gender;
- The use of new technologies to keep in touch with friends and family is influenced by gender;
- The most impulsive purchase is influenced by age, mainly among young people (18-34 years) and adults (35-54 years), which can be concluded that the two groups have different perspectives regarding the most impulsive purchase during the pandemic;
- The increase in online shopping is influenced by age, especially among young people and older people (55 years or older), demonstrating that they have different perspectives at this level;
- The increase in home delivery orders is influenced by age;
- Discovery of new talents and interests in new activities is influenced by age
- The greater reflection on the importance of buying national products and the increase in the purchase of national products is influenced by gender;
- The greater reflection on the social responsibility of brands and the increase in the purchase of products whose brands are socially responsible is influenced by gender.

The results can be seen in table 15.

Table 15 – Influence of sociodemographic variables on pandemic trends

Criteria Used	Ho= Are independent; H1= Are not independent; Sig < 0,05 Reject H0.					
	Age		**Income**		**Gender**	
	Z	*p*	Z	*p*	Z	*p*
I postponed the purchase of more expensive products.	-,010	,992	-1,243	,214	-2,751	,006
I used new technologies to keep in touch with friends and family.	-,915	,361	,075	,940	-1,981	,048
I feel like I bought more on impulse.	-2,335	,015	-,940	,348	-1,266	,206
I bought more online.	-2,938	,003	1,018	,309	-1,018	,281
Ordered more home deliveries.	-2,457	,014	1,955	,051	-,642	,521
I discovered new talents and got interested in new activities.	-2,371	,018	-,865	,387	-,435	,663
I reflected more on the importance of buying national products.	-,042	,967	-,905	,366	-5,232	<,001
I bought more national products.	1,393	,164	,608	,543	-3,702	<,001
I reflected more on the social responsibility of brands.	-,688	,492	-1,959	,051	-4,937	<,001
I bought more products from socially responsible brands.	,025	,980	-,303	,762	-3,434	<,001

Source: Self elaboration.

4. Conclusion

The Covid-19 pandemic has, in fact, triggered new consumption habits and trends.

In terms of new online consumption habits, the increase in the number, proportion and amount spent on online purchases stands out. It can also be seen that payment methods have changed during the pandemic, with the credit/debit card and the MB Way becoming the preferred methods of respondents and a substantial decrease in the use of ATMs and cash on delivery and, on the contrary, an increased use of the MB Way.

Regarding the purchasing habits of the different categories of products during the pandemic, personal and routine care products stand out as the products that were bought the most and, in turn, products more related to leisure, were the categories most affected. There is an influence of sociodemographic characteristics, utilitarian and hedonic motivations and risk perception on online shopping habits of certain categories during the pandemic. Still within this topic, we tried to understand if there are indicators of constructs and ideas and there was an association between 3 groups: the first group related to daily life at home and routine, the second group more related to care and image and, finally, the third group, probably the most affected during the pandemic, which includes services more related to leisure and tourism and products with greater monetary value.

Regarding the trends arising from the Covid-19 pandemic, the agreement rate was higher in the trends “I accumulated products that I did not need to manage uncertainty”, “I used new technologies to keep in touch with friends and family” and “I ordered more home deliveries”. There was also a great influence of sociodemographic variables on the mentioned trends.

The relevance of this study focuses, above all, on the relevance of understanding consumer behavior during such an atypical period. Although consumer behavior is a widely studied subject, since understanding how people buy is one of the great challenges of marketing and a critical factor for a company to succeed in the business area where it operates. In this specific period, it allows us to assess how the context has relevance in the way people buy, live and develop new behaviors and habits that, most likely, will not end at the end of the pandemic.

In addition to this, the importance of the digital medium to mitigate the negative impacts of the Covid-19 crisis is also indisputable and, most likely, we are witnessing the beginning of the digital era more pronounced than ever, where the distinction between offline and online will no longer make sense, since the digital will always be connected to the day-to-day.

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Drivers of social media adoption in B2B markets

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Abstract

The Internet and social media have been gaining increasing visibility in the business world. In the last decade, this digital transformation has led to a change in the behaviour of marketing professionals and managers around the world. Although there are still some fears about the use of social media in the B2B context, it is unquestionable that these social media have proven to be essential in outlining a competitive strategy. The purpose of our study is to identify the main drivers of social media adoption in B2B markets. Based on a sample of 223 workers from B2B companies, a structural equations model was used to test the relationships among the variables learning, memorability, absence of errors, usability, functionality, social influence, satisfaction, trust, and social media adoption. The results showed that the variables learning, memorability and absence of errors are key determinants of social media usability. In turn, social influence and usability are crucial for trust in social media. Conversely, usability and trust are fundamental to social media usefulness. Satisfaction with social media is achieved through greater ease of use, usefulness, and trust. Finally, when social media users are satisfied, are subject to social influence, and judge social media to be usefulness, they tend to adopt social media.

Keywords: Social Media; Adoption; Drivers; B2B Markets.

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1. Introduction

The purpose of this study is to investigate the factors that, in the Business-to-Business (B2B) context, lead to the adoption of social media. Thus, the factors considered most important in the adoption of social media will be analysed, such as the usability of social media, that is, their ease of use, the social media usefulness, that is their functionality, satisfaction with social media, the trust that they should provide to their users, and, finally, the social influence they exert. In turn, variables such as learning, memorability and absence of errors were considered fundamental determinants of social media ease of use, i.e., of their usability.

2. Literature Review and Research Hypotheses

The decision to adopt a new technology is based on several parameters, such as the evaluation of the capabilities, the characteristics, and the challenges of the technology, which is rarely independent of other choices (Sharma et al., 2020). Researchers, when it comes to information technology adoption, have applied theories such as Rogers' Diffusion of Innovation (DOI) (1962), Fishbein and Ajzen's Theory of Reasoned Action (TRA) (1975), Davis's Technology Acceptance Model (TAM) (1989), and Venkatesh et al.'s Unified Theory of Acceptance and Use of Technology (UTAUT) (2003).

The TAM, developed by Davis (1989), based on Fishbein and Ajzen's TRA (1975), is one of the most common frameworks for investigating innovation adoption (Karjaluoto et al., 2021). The original TAM comprises two main predictors: perceived usefulness (or perceived functionality) and perceived ease of use (or perceived usability), which together explain attitudes towards technology use and intention to use. Over time, several researchers have extended TAM by adding more components considered determinants of technology adoption. Thus, Venkatesh and Davis (2000) devised TAM2, adding social influence to the other two determinants, usability and utility. Later, Venkatesh and Bala (2008) developed TAM3. The Unified Theory of Technology Acceptance and Use (UTAUT) by Venkatesh et al. (2003) is another extension of TAM and used constructs such as performance expectancy (similar to perceived usefulness), effort expectancy (similar to usability), social influence (similar to subjective norms) and facilitating conditions (similar to perceived behavioural control). According to Alghazi et al. (2021), TAM and UTAUT are the most frequently used models to measure users' perceptions of technology. TAM was developed to measure only behaviour in relation to computer use. The UTAUT, on the other hand, was developed based on eight theories to measure technology acceptance.

This section presents the theoretical framework that supports the construction of our research model, which is based on the Technology Acceptance Model (TAM) developed in 1989 by Davis. The TAM, being one of the most widely applied models of technology acceptance and use by users, is one of the best-known extensions in the literature of the Theory of Reasoned Action (TRA) by Fishbein and Ajzen's (1975). Trust was inserted into the model proposed in this work, given that it seems to be a key piece in explaining technology adoption, to the extent that it reduces the perception of risks associated with its use. In this sense, some authors, as is the case of Muñoz-Leiva et al. (2017) advocated that the inclusion of the trust variable can be seen as an extension of the TAM model. In turn, satisfaction is also considered a key variable in competitive environments, particularly in the online context (Tandon et al., 2016). The model proposed by Lacka and Chong (2016) also considered as facilitator variables of the social media use, the ability to learn how to use them, the memorability and the absence of errors, so we considered it important to include these variables in our model.

2.1. Drivers of social media adoption

The adoption of social media by companies was chosen as the final variable of our model. Although the authors differ as to the importance they assign to the factors that encourage the adoption of social media, we considered important to consider as antecedents of this variable the learning ability, memorability, absence of errors, usability and usefulness of social media, the satisfaction with social networks, the trust they should provide to their users and the social influence they radiate.

Learning ability emerges as one of the factors that determines the adoption of social networks in the B2B context. For Nielsen (1993), learning ability is one of the crucial components that justify the ease of use of a given technology. For this author, the easier a given technology is to learn, the easier it is to use. In a similar vein, some emphasise that since social media are easy-to-learn technologies, the learning capacity of firms becomes quite high, hence the impact on their usability (Siamagka et al., 2015). Nielsen (1993) also states that memorability is another crucial factor when it comes to the use of new technologies, because if users are able to easily memorise their use, they will use them in their work context. There are studies that reinforce the idea that the usability of social networks, in the B2B context, depends largely on memorisation by their users. A technology, besides having to be learned, it is crucial that it is easy to remember (Lacka & Chong, 2016). Thus, we will test the following hypotheses:

H1: Learnability positively influences social media usability in the B2B context.

H2: Memorability positively influences social media usability in the B2B context.

An error may limit the users' perception of social media usability in the B2B context and, consequently, may decrease their interest in adopting this type of technology (Nordlund et al., 2011). From this perspective, the use of technologies may eventually involve errors (Lacka & Chong, 2016). However, the number of errors should be low, otherwise it will have a less positive impact on usability. Since the question focuses on the absence of errors, we will test the following hypothesis:

H3: Errors absence positively influence social media usability in the B2B context.

Perceived usability (perceived ease of use) refers to the degree to which a person believes that using a given system is effortless (Davis, 1989). In this way, perceived usability or perceived ease of use refers to the ease of use of a given technology and is therefore often associated with factors such as trust and satisfaction on the part of users (Flavián et al., 2006; Casaló et al., 2008; Tandon et al., 2016). Nielsen (2012) states that perceived usability refers to the ease of understanding the structure of a given platform, in this case social media, as well as its functions, and the content that is visible by the user. Another issue that is also related to usability is the simplicity of use of that same platform, especially when there is an initial contact. The ease with which users find what they are looking for is also another very important component, as well as the ease of navigation on that same platform, i.e., in this case the social media, and how these are able to make the user get the desired results, there being a good relationship between the moment an action is ordered by the user and the response time of that same platform to accomplish that request.

According to Casaló et al. (2008), the concept of usability considers the following factors: the ease of understanding the structure of the website, its functions, interface and contents that can be observed by the user; the simplicity of using the website in its initial phases; the speed with which users can find what they are looking for; the ease of navigating the website in terms of time required and action needed to obtain the desired results; and the ability of users to control what they do and where they are, at any time.

Usability is related to trust and intention to use a given product/service (Rupp et al., 2018). In other words, the higher the usability of a given technology, the greater the individual's belief that its use will help him/her achieve the proposed goals, which results in increased trust towards the technology. Several studies point in the same direction, as usability positively influences trust due to the honesty that transpires on the website or online technology that is used (Chinomona, 2013; Atwater et al., 2015; Al-Khalaf & Choe, 2019; Chawla & Joshi, 2019, Kaabachi et al., 2020). Thus, we will test the following hypothesis:

H4: Usability positively influences trust in social media in the B2B context.

Perceived usefulness refers to the degree to which a person believes that using a particular system improves their productivity or job performance (Davis, 1989). Perceived usefulness or perceived functionality is also understood, on numerous occasions, as a perceived relative advantage (Liebana-Cabanillas et al., 2020).

According to the TAM model, usability has a positive impact on perceived functionality (Davis, 1989). Studies are known to have highlighted this relationship in social networks, in the B2B context (Siamagka et al., 2015). This occurs because the easier it is to use a particular technology, the more likely the user is to see it as functional, i.e., as increasing performance in their work (Lacka & Chong, 2016). Also in an online context, there is no shortage of studies that have shown the impact that usability has on usefulness (Belanche et al., 2019; Foroughi et al., 2019; Hubert et al., 2019; Park et al., 2019; Qin et al., 2019; Zhang et al., 2019; Aji et al., 2020; Baccarela et al., 2020; Chattergee et al., 2020; Cheunkamon et al., 2020; Karkar, 2020; Kavota et al., 2020; Liébana-Cabanillas et al., 2020; Lin et al., 2020; Saheb, 2020; Trinh et al., 2020; Yu & Huang, 2020; Bravo et al., 2021; Khan et al., 2021; Rahi et al., 2021; Wong et al., 2021). Thus, we will test the following hypothesis:

H5: Usability positively influences social media usefulness in the B2B context.

Usability has a positive impact on user satisfaction (Flavián et al., 2006). This is because the easier a technology is to use, the greater the degree of user satisfaction. Several studies have shown that there is a direct relationship between these two variables (Tandon et al., 2016; Aboelmaged, 2018; Wu & Cheng, 2018; Rahi & Ghani, 2019; Nadeem et al., 2020; Shin, 2020; Salimon et al., 2021). Thus, we will test the following hypothesis:

H6: Usability positively influences satisfaction with social media in the B2B context.

Bhattacherjee (2001) related the functionality variable of the TAM model with the satisfaction variable, finding that the functionality of a given technology has a strong impact on user satisfaction. Several studies have shown that there is a positive impact of the functionality of a given technology on its users' satisfaction in the online context (Hsiao & Tang, 2016; Wu & Cheng, 2018; Foroughi et al., 2019; Tsao, 2019; Cheng, 2020; Cheunkamon et al., 2020; Gupta et al., 2020; Kar, 2020; Osatuyi et al., 2020; Ruangkanjanases et al., 2020; Shin, 2020; Rahi et al., 2021; Salimon et al., 2021). Thus, we will test the following hypothesis:

H7: Usefulness positively influences satisfaction with social media in the B2B context.

In an online environment with high uncertainty, the importance of trust is crucial for consumers to reduce risk perceptions (Pavlou & Xue, 2007). Trust plays an important role in social media adoption because online transaction, besides being intangible, involves a significant degree of perceived risk and unpredictability (Slade et al., 2014; Arif & Du 2019).

Perceived functionality only exists when trust on the part of the user is formed (Pavlou, 2003; Hong & Na, 2008; Alarcón-del-Amo et al., 2014; Yoo et al., 2017). In studies, conducted in the online world, trust exerted a significant impact on the functionality of the online product/service that the user was enjoying (Li et al., 2017; Chen & Aklikokou, 2019; Al-Omairi et al., 2020; Talwar et al., 2020; Gawron and Strzelecki, 2021; Khan et al., 2021). Thus, we will test the following hypothesis:

H8: Trust positively influences social media usefulness in the B2B context.

In several studies, trust exerted a positive impact on the satisfaction of an individual purchasing a product or service from a company (Romeike et al., 2016; Ofori et al., 2017; Beyari & Abareshi, 2018; Cheunkamon et al., 2020; Kalinić et al., 2020; Kar, 2020; Tam et al., 2020; Zhu et al., 2020; Attar et al., 2021; Rahi et al., 2021). In general, life satisfaction for an individual, in this case a user, is inevitably related in a positive way to norms of reciprocity and trust towards the other party involved (Valenzuela et al., 2009). In this sense, we will test the following hypothesis:

H9: Trust positively influences satisfaction with social media in the B2B context.

Social influence is defined as the importance given by consumers to the opinions of other people (family, friends, among others) in relation to technology use (Venkatesh et al., 2012). Social influence plays a key role in increasing the adoption rate of consumer-focused digital services (Venkatesh et al. 2003; Shin 2009).

Several authors have advocated that there is a positive effect of social influence on the trust variable, since if people whose opinion the user values use, then it is because they trust that service or product (Chaouali et al., 2016; Malachi & Hwang, 2016; Hoque & Sorwar, 2017; Shareef et al., 2017; Kaabachi et al., 2019; Pinochet et al., 2019; Al-Omairi et al., 2020). Thus, we will test the following hypothesis:

H10: Social influence positively influences trust in social media in the B2B context.

There have been studies where social influence had a positive impact on users' adoption of a given technology (Zhou et al., 2010; Mandal & McQueen, 2012; He et al., 2017; Sabani, 2020; Sampa et al., 2020; Singh et al., 2020). This is because the beliefs of others, whose opinion the user values, influence the adoption of a given technology (Tam & Oliveira, 2017). Having said this, we will then test the following hypothesis:

H11: Social influence positively influences social media adoption in the B2B context.

Satisfaction has a positive impact on adoption, as when users feel satisfied, they adopt social media (Tam & Oliveira, 2017; Hallak et al., 2018; Markovic et al., 2018). Thus, we will test the following hypothesis:

H12: Satisfaction positively influences social media adoption in the B2B context.

Perceived usefulness, rather than perceived ease of use, is the most significant factor influencing firms' adoption of social media (Ahamat et al., 2017). The studies by Siamagka et al. (2015), Golsefid and Kiakalayeh (2016), Isaac et al. (2017), Sharma et al. (2017), Bogea and Brito (2018), Rahman et al. (2019), Alamri et al. (2020), Basit et al. (2020), Sampa et al. (2020), Singh et al. (2020), and Dwivedi et al. (2021) also highlighted this relationship. Thus, we will test the following hypothesis:

H13: Usefulness positively influences social media adoption in the B2B context.

3. Research Methodology

The conceptual model proposed in the present study is depicted in Figure 1. This research model investigates learnability, memorability, and absence of errors as antecedents of social media usability. In turn, we propose that social media usability and social influence are determinants of trust in social media. On the other hand, we propose that social media usability and social influence are determinants of trust in social media, being, in turn, the variables social media usability and trust in social media antecedents of social media usefulness and satisfaction with social media. The usefulness of social networks is a determinant of satisfaction. Finally, we propose as direct antecedent variables of social network adoption, social influence, social network usefulness and satisfaction with social networks. Consequently, this is a pioneer model about the determinants of social media adoption in Portugal.

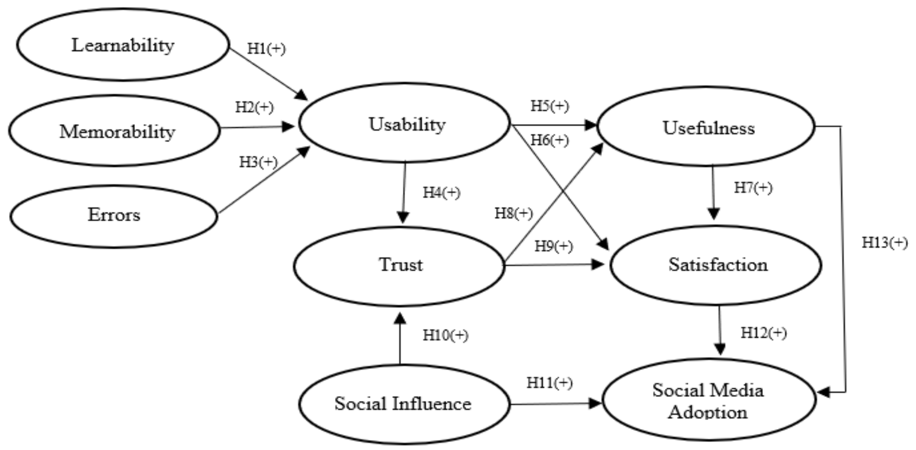


Figure 1 - Proposed Conceptual Model

Source: Elaborated by the authors

3.1. Sample selection and data collection

From the online surveys sent to B2B companies from the North to the South of Portugal, 223 valid answers were obtained. Of these, 48.4% are female and 51.6% are male. As to the position held, the majority, 54.7%, stated that they hold management, marketing, or CEO positions. As for education, 53.4% have a degree and 22.9% a master's degree. In turn, 99.1% stated that they have been familiar with the Internet for more than 6 years. Lastly, companies with up to 10 and between 10 and 49 workers represented 55.6% of the sample, between 50 and 250 are 20.2% and with more than 250 are 24.2%.

3.2 Measurement scales

To measure the variables, we used scales based on the literature. The variables were assessed using 7-point Likert scales, where 1 is equivalent to "Strongly Disagree" and 7 corresponds to "Strongly Agree". The choice of this scale is justified because it is the most recommended for attitudes, being useful in measuring the intensity of the respondent's feelings (Churchill, 1979).

The scales for the variables used in this study were adapted from other scales taken from the literature and are shown in Table 2. The scales for measuring learnability, memorability and errors absence were taken from Lacka and Chong (2016). The scale to measure usability was adapted from Flavián et al. (2006) and Lacka and Chong (2016). The scale to measure usefulness was adapted from Siamagka et al. (2015) and Lacka and Chong (2016). The scale to measure satisfaction was adapted from Hsiao et al. (2016) and López-Miguens and Vázquez (2017). The scale to measure trust was adapted from Oliveira et al. (2014) and Muñoz-Leiva et al. (2017). The scale to measure social influence was adapted from Gu et al. (2009) and Oliveira et al. (2016). Finally, the scale to measure social media adoption was taken from Agnihotri et al. (2016) and Lacka and Chong (2016).

4. Analysis and Results

4.1. Measurement Model

An initial screening of each scale was conducted using item-total correlations, and exploratory factor analysis (EFA) using SPSS 26.0. Following Anderson and Gerbing's (1988) two-step approach, a measurement model was estimated before testing the hypotheses, using a structural model. The analysis of data was realized through confirmatory factor analysis (CFA) and structural equation modeling (SEM) using the statistical software AMOS (Analysis of Moment Structures) version 26.0. Maximum likelihood estimation procedures were used since these afford more security in samples that might not present multivariate normality. First, we examined the most relevant fit indices of the measurement models recommended by Chin and Todd (1995) and Hu and Bentler (1999).

Table 1 – Factor Correlation and Measurement in Information Matrix

Construct	CR	AVE	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
Learnability (X_1)	.96	.88	*.96*								
Memorability (X_2)	.97	.93	.84	*.98*							
Errors (X_3)	.94	.83	.76	.77	*.93*						
Satisfaction (X_4)	.99	.94	.68	.68	.77	*.99*					
Trust (X_5)	.99	.95	.58	.60	.65	.74	*.99*				
Usability (X_6)	.98	.92	.81	.86	.77	.77	.73	*.98*			
Usefulness (X_7)	.98	.93	.69	.66	.68	.83	.81	.78	*.98*		
Social Influence (X_8)	.95	.85	.58	.58	.62	.76	.83	.72	.79	*.94*	
Social Media Adoption (X_9)	.98	.93	.64	.65	.65	.85	.76	.74	.87	.77	*.98*

Note: The Cronbach's alpha coefficients are found on the diagonal (italic).
Abbreviations: AVE (average variance extracted), CR (composite reliability).

Table 2 - Measurement scales, results of standardized estimated parameters and t-values of the measurement model

Measures	Standardized Loadings	t-Value
Learnability		
Learning how to use social media is easy for me.	0.866	16.995
It is easy for me to learn how to use social media to achieve the proposed objectives.	0.996	21.775
It is easy for me to understand how to use social media to achieve the proposed goals.	0.980	21.089
Memorability		
It is easy to remind myself how to use social media.	0.970	20.792
I am able to return to social networks and use them after a period without using them.	0.971	20.724
I am able to repeat activities carried out using social media.	0.946	19.747
Errors		
I make few errors while using social media.	0.936	19.174
If I make errors using social media, I can easily overcome them.	0.948	19.367
Catastrophic errors do not occur while I am using social media.	0.853	16.419
Satisfaction		
My experience using social media in my work has been satisfactory.	0.957	20.213
I am satisfied with the service provided by social media.	0.959	20.271
My choice to use social media for work purposes has been successful.	0.990	21.574
I feel good about having decided to use social media.	0.988	21.487
Overall, I am satisfied with social media.	0.970	20.738
Trust		
Social media seem trustworthy.	0.985	20.338
Social media seem safe.	0.970	20.719
Social media seem credible.	0.974	20.860
In general, I trust social media.	0.962	20.405
Usability		
It's easy to navigate social media.	0.952	19.994
It is easy to become skilled at using social media.	0.965	20.472
Interaction with social media is clear and understandable.	0.947	19.776
In general, social networks are easy to use.	0.964	20.442
Usefulness		
Using social networks increases my productivity at work.	0.951	19.950
Using social media boosts my effectiveness.	0.964	20.455
Using social media improves my performance.	0.982	21.445
Social media allows me to get my work done faster.	0.959	20.455
Social Influence		
People who are important to me think I should use social media.	0.923	18.799
People who influence my behaviour think I should use social media.	0.973	20.664
I use social networks because many people use them.	0.874	17.129
Social Media Adoption		
I frequently use social media in my work.	0.963	20.419
I am using social media to its full potential to get my work done.	0.952	20.014
In my work routine, social media is an integral part.	0.980	21.390
In the last 6 months, I have regularly used social media in my work.	0.960	20.310

The measurement model fits the data well. To test a model's fit, the chi-square (X2) test statistic concerning degrees of freedom (df) can be used. If the X2 /df value is less than 3, the model is considered a good fit. The chi-square (X2) was 972.464 with 459 degrees of freedom at p<0.001 (X2 /df=2.1). Because the chi-square is sensitive to sample size, we also assessed additional fit indices: (1) normed fit index (NFI), (2) incremental fit index (IFI), (3) Tucker–Lewis's coefficient (TLI) and (4) comparative fit index (CFI). All these fit indices are higher than 0.9 (NFI=0.93, IFI5=.95, TLI=0.96 and CFI=0.96). Because fit indices can be improved by allowing more terms to be freely estimated, we also assessed the RMSEA, which is 0.071.

CFA enables the performance of tests regarding the convergent validity, discriminant validity and reliability of the study constructs. A commonly used method for estimating convergent validity examines the factor loadings of the measured variables (Anderson & Gerbing, 1988). Following the recommendations by Hair et al. (2014), factor loadings greater than 0.5 are considered very significant. Also, we used the AVE to contrast convergent validity. Fornell and Larcker (1981) suggested adequately convergent valid measures should contain less than 50% error variance (AVE should be 0.5 or above). Convergent validity was achieved in this study because all the factor loadings exceeded 0.5 and all AVEs were greater than 0.5. Next, CFA was used to assess discriminant validity. If the AVE is larger than the squared correlation between any two constructs, the discriminant validity of the constructs is supported (Fornell & Larcker, 1981). Discriminant validity was also assessed for each pair of constructs by constraining the estimated correlation between them to 1.0, and a difference test was performed on the values obtained from the constrained and unconstrained models (Anderson & Gerbing, 1988). Discriminant validity of the scales was also supported, as none of the confidence intervals of the phi estimates included 1.0 (Anderson & Gerbing, 1988). Finally, Gaski (1984) suggests the existence of discriminant validity if the correlation between one composite scale and another is not as high as the coefficient alpha of each scale. These tests demonstrated that discriminant validity is present in this study.

To assess reliability, the composite reliability (CR) for each construct was generated from the CFA. The CR of each scale must exceed the 0.7 thresholds (Bagozzi, 1981). As Table 1 shows, the composite reliability coefficients of all the constructs are excellent, being larger than 0.9. Cronbach's alpha indicator was also used to assess the initial reliability of the scales, considering a minimum value of 0.7 (Cronbach, 1970; Nunnaly, 1978). As shown in Table 1, coefficient alpha values are all over 0.9, exhibiting high reliability. Table 1 also shows the AVE for each construct, and a correlation matrix of constructs is also shown. In Table 2, we can also see the standardized loadings and t-value of all scale items.

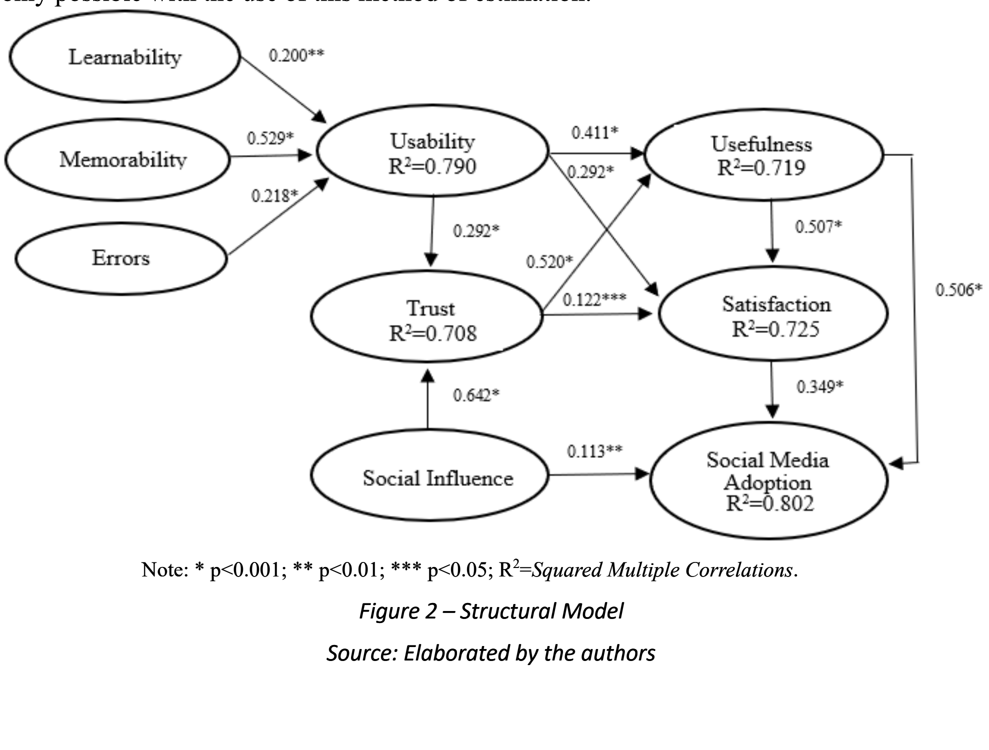
4.2. Structural Model

The structural model fits the data very well (X^2=1153.937, df=476, p<0.01, X^2/df=2.4, IFI=0.96, TLI=0.95, CFI=0.96, RMSEA=0.077). This model is represented in Figure 2.

The results in Table 3 show the relationships proposed in the structural model. The model supports the thirteen proposed hypotheses.

According to Bollen (1989), it is very important to analyze the effects of total effects (direct and indirect effects) because an examination of only the direct effects could be misleading. The analysis of indirect effects highlights the importance of mediating variables in explaining social media adoption. Thus, in Table 4, we can observe the standardized direct, indirect and totals effects.

We used the bootstrapping technique with a sample of 2,000 random observations generated from the original sample, and a confidence interval of 95% was also used in the estimation of the proposed model. This is because the analysis of total and indirect effects is only possible with the use of this method of estimation.



Note: * p<0.001; ** p<0.01; *** p<0.05; R^2=*Squared Multiple Correlations*.

Figure 2 – Structural Model

Source: Elaborated by the authors

Table 3- Estimation results of the structural model

Path	Standardized Loadings	t-Value	Hypotheses
Learnability → Usability	0.200**	3.105	H1 (+): S
Memorability → Usability	0.529*	7.818	H2 (+): S
Errors → Usability	0.218*	3.806	H3 (+): S
Social Influence →Trust	0.642*	13.184	H4 (+): S
Usability → Trust	0.292*	6.384	H5 (+): S
Usability →Usefulness	0.411*	8.383	H6 (+): S
Trust → Usefulness	0.520*	10.619	H7 (+): S
Usability → Satisfaction	0.292*	5.322	H8 (+): S
Usefulness→ Satisfaction	0.507*	7.392	H9 (+): S
Trust → Satisfaction	0.122***	2.082	H10 (+): S
Satisfaction → Adoption	0.349*	6.333	H11 (+): S
Usefulness → Adoption	0.506*	8.410	H12 (+): S
Social Influence → Adoption	0.113**	2.725	H13 (+): S

Note: * p<0.001; ** p<0.01; *** p<0.05 (one tail tests).

Table 4 - Standardized direct, indirect, and total effects

Paths	Direct Effects	Indirect Effects	Total Effects
Learnability → Usability	0.200***	-	0.200***
Memorability → Usability	0.529*	-	0.529*
Errors → Usability	0.218**	-	0.218**
Social Influence →Trust	0.642*	-	0.642*
Usability → Trust	0.292**	-	0.292**
Errors → Trust	-	0.064**	0.064*
Memorability → Trust	-	0.154*	0.154*
Learnability → Trust	-	0.058**	0.058**
Usability → Usefulness	0.411**	0.152*	0.563**
Trust → Usefulness	0.520*	-	0.520*
Social Influence → Usefulness	-	0.334*	0.334*
Learnability → Usefulness	-	0.112*	0.112***
Memorability → Usefulness	-	0.298*	0.298*
Errors → Usefulness		0.123*	0.123*
Usability → Satisfaction	0.292**	0.321*	0.563*
Usefulness → Satisfaction	0.507*	-	0.507*
Trust → Satisfaction	0.122***	0.264*	0.385*
Social Influence → Satisfaction	-	0.248*	0.248*
Learnability → Satisfaction	-	0.122***	0.122***
Memorability → Satisfaction	-	0.325*	0.325*
Errors → Satisfaction	-	0.134*	0.134*
Satisfaction → Social Media Adoption	0.349*	-	0.349*
Usefulness → Social Media Adoption	0.506*	0.177*	0.683**
Social Influence → Social Media Adoption	0.113****	0.255*	0.368*
Trust → Social Media Adoption	-	0.398*	0.398*
Usability → Social Media Adoption	-	0.499**	0.499**
Learnability → Social Media Adoption	-	0.100**	0.100**
Memorability → Social Media Adoption	-	0.264*	0.264*
Errors → Social Media Adoption	-	0.109*	0.109*

Note: * p<0.001; ** p<0.01; *** p<0.05.

5. Discussion and Conclusions

Memorability has the strongest direct influence on the usability of social media by companies, followed by the absence of errors and, finally, learnability. In other words, the easier social media are to remember, the easier they are to use. The absence of errors is also important to consider that social media are easy to use. On the other hand, learning ability is the variable which, although it showed a significant effect on usability, had a lower impact. In Lacka and Chong's (2016) study, memorability also proved to be the most important variable when it comes to adopting social media. However, while in our study the absence of errors exerted a stronger influence than the ability to learn when it comes to social media adoption, in the work of Lacka and Chong (2016) the effect of the ability to learn was greater.

Social influence has a very strong impact on trust in social media, because the greater the influence that other people exert, when it comes to use social media at work, the higher the trust they inspire. The same relationship was found in the study of Al-Omairi et al. (2020). The effect of the social media ease of use on trust, although significant, was found to be weaker. The studies by Chawla and Joshi (2019) and Kaabachi et al. (2020) also demonstrated the impact of usability on trust in social media.

The strongest direct impact on social media satisfaction comes from usefulness. The studies of Rahi et al. (2021) and Salimon et al. (2021) confirm this relationship. Usability and trust have also a significant influence on social media satisfaction, although weaker. Salimon et al. (2021) support the impact of usability on social media satisfaction. Rahi et al. (2021) also demonstrate that trust has a positive effect on social media satisfaction.

When it comes to social media adoption, usefulness plays a crucial role, like the studies of Singh et al. (2020) and Dwivedi et al. (2020). Satisfaction is also very important in social media adoption, as in the studies of Hallak et al. (2020) and Markovic et al. (2018). Finally, social influence has a significant effect on social media adoption, although weaker. Sampa et al. (2020) and Singh et al. (2020) also demonstrate this last relationship.

6. Implications and Limitations

The social media usefulness depends on trust and ease of use. Thus, the strongest effect found was that of trust on social media usefulness. In other words, the more trustworthy social media are, the more useful they prove to be as a working tool in companies. The studies by Gawron and Strzelecki (2021) and Khan et al. (2021) confirmed this relationship. In turn, as in the studies of Rahi et al. (2021) and Wong et al. (2021), the social media ease of use also evidenced a strong effect on the social media usefulness.

Satisfaction with social media stems both from whether they are useful, how easy they are to use and how trusting they are. The social media usefulness exerts the strongest effect on satisfaction with social media. The impact of social media ease of use on satisfaction is also strong. The influence of trust on satisfaction with social media is weaker, although significant. The effects of ease of use and usefulness of social media on satisfaction were evidenced in Salimon et al. (2021), whereas the impact of trust in social media on satisfaction was verified in Attar et al. (2021) and in Rahi et al. (2021).

The social media adoption, in the context of work in companies, results from the social media usefulness, satisfaction with it and social influence. The social media usefulness was found to have the greatest impact on social media adoption, followed by satisfaction and finally social influence. The impact of social media usefulness on social media adoption was confirmed in Sampa et al. (2020) and Dwivedi et al. (2021). The impact of satisfaction on social media adoption was evidenced in Markovik (2018). Finally, the effect of social influence on adoption was shown in Sabani et al. (2020) and Sampa et al. (2020).

It should be stressed, however, that the total effects (direct and indirect) should be investigated, because considering the total effects will give us a more rigorous assessment of the relationships between the variables under analysis. The strongest total effect (direct and indirect) on the social media usefulness resulted from the ease of using them, closely followed by the trust one has in social media. As for the strongest total effect (direct and indirect) on satisfaction with social media, this resulted from the ease of use of social media, followed by their usefulness, and finally by trust. Finally, regarding the final variable, social media adoption, the strongest total effect (direct and indirect) resulted from social media usefulness. Social media usability, social influence, trust in social media, and satisfaction with social media also exerted a strong total effect on social media adoption. In short, it is important for companies to realise that the social media usefulness is claimed to be a determinant of social media adoption. The social media ease of use, the influence of third parties, trust in them and satisfaction with social media also proved to be decisive in the adoption of social media.

6.1. Theoretical Implications

Much of the interest of the present work lies in the analysis of the variables that determine the adoption of social media in the B2B context. The variable usefulness or functionality proved to be fundamental in the adoption of social media. The variables ease of use or usability, social influence, satisfaction, and trust also showed a significant effect on the adoption of social media by companies. Thus, our aim is to contribute to the analysis of the key determinants of social media adoption in the B2B context, in Portugal.

6.2. Management Implications

The main objective of this research is to evaluate the main antecedents of social media adoption in the B2B context. Although there is still some concern about the use of social media in the B2B context, this study highlights that social media makes a decisive contribution to companies' sustainable competitive advantage.

6.3. Limitations and Future Research

The research findings should be interpreted, taking into consideration certain limitations. Future studies could examine other determinants of social media adoption in the B2B context.

Given that the present study used cross-sectional data, it would also be of great interest for future research to use a longitudinal sample to assess the nature of social media adoption over time.

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WOM antecedents of city residents:
differences between men and women

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Abstract

The impact of the COVID-19 pandemic on tourism has reduced the flow of visitors to cities, paralyzing what was a growing sector in recent years. Currently, cities urgently need to attract tourists to their territories. In this dissemination of cities, the role of citizens residing in cities cannot be neglected since, through their word of mouth (WOM), they promote their cities' experiences, infrastructure, and atmosphere. However, the WOM of cities differs between men and women.
In this context, our study aimed to explore the factors that influence WOM by men and women residing in cities, identifying that infrastructure, atmosphere, and perceived psychological well-being play an essential role in this influence.
Thus, this cross-sectional study obtained data through a questionnaire that resulted in a sample consisting of 428 individuals. The hypothesis test was carried out using SMART PLS software and identified that infrastructure, atmosphere, and perceived psychological well-being positively influence citizens' WOM. In this context, our research contributes to those responsible for cities to develop actions, with their citizens, with the aim of disseminating their heritage and encouraging tourists to visit the territories through them.

Keywords: Infrastructures, Wellness, Word of Mouth, Residents, Tourism

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1. Introduction

The theme of quality of life has aroused a growing interest in the academy; several studies have been developed either on the subject of public management, in terms of being social, lacking further development (Cuadrado-Ballesteros, Mordán, & García-Sánchez, 2014). "Municipalities have a growing role in sustainable development and promoting citizens' quality of life (Burrett, 2009, p.155). Mohseni (2020) works on charitable smart cities, where cities benefit from various facilities and opportunities. This way, when residents feel satisfied with the city's facilities and opportunities, they will have a positive attitude towards tourism. Through WOM, residents help promote (e.g., Ribeiro, Oom do Valle, & Silva, 2013) and create the destination image (Bornhorst, Ritchie, & Sheehan, 2009). This study aims to understand the factors (infrastructure, atmosphere, and perceived psychological well-being) that influence WOM in men and women residing in cities.

2. Theoretical Framework

2.1. Quality of life for residents

The concept of quality of life is complex and involves several subjective and objective indicators (Sirgy, 2001). The quality of the built social infrastructure influences the quality of life, being able to meet the needs of residents, and affect social well-being (Vaznoniene, 2015) in the built environment, being strongly connected with social sustainability (Grum & Grum, 2020).). In addition to built infrastructure, social infrastructure also includes public services such as education, health, maintenance, postal services, firefighting services, and other public services (Atkociuniene, Vaznoniene & Pakeltiene, 2015).

González, Carcaba, Ventura, and Garcia (2011) analyzed the quality of life of the most prominent Spanish municipalities, concluding that the factors that condition a better quality of life are related to living conditions, namely education, health facilities and culture, pollution and crime, but also population density, growth and aging.

Węziak-Białowolska (2016) analyzed aspects of the quality of urban life in European cities, realizing that satisfaction or dissatisfaction with life in a city depends on public transport, cultural facilities, availability of points of sale, green spaces, air quality, people's reliability, public administration, and administrative efficiency, being these factors motivating some dissatisfaction. On the other hand, the factors most linked to satisfaction with life in the city are safety and place of residence.

Giannico, Spano, Elia, D'Este, Sanesi, and Lafortezza (2021) analyzed the relationship between green spaces in cities and the quality of life perceived by citizens, environment, social inclusion, and urban management in European cities, considering that there are benefits and an influence of these green spaces on the health and well-being of citizens, improving their quality of life. Farrokhian, and Mayedzadeh, (2020) also point out that the increase and improvement of green spaces in the city bring significant improvements to overall higher quality of life for residents. Another important factor concerns the perception of the celebratory atmosphere in the city that increases the subjective well-being of the residents of the host city. Stefansdottir (2018) adds that the atmospheric characteristics of different locations influence residents' perception of quality of life.

In addition to the city's infrastructure and atmosphere, Burret (2009) adds that municipalities need better means to plan, manage and involve the community, demonstrating transparency and responsibility towards citizens. In this way, the city's communication also affects the residents' quality of life. "The growing demand for transparency has recently fostered greater openness within public administrations. Considered an essential tool of good management, transparency helps to reinforce the authorities' perception of legitimacy" (Keuffer & Mabillard, 2020, p. 782). For Keuffer and Mabillard (2020), municipalities are more open, transparent, and closer to the population, with more proactive dissemination of information, reducing information asymmetry and conditioning the quality of interactions between the various actors and the quality of life of those involved residents. The study by Jurowski and Brown (2001) points out that the involvement of residents with the city leads to a more favorable assessment of the quality of life. In this sense, cities and those responsible for their management have a crucial responsibility in how residents look at, live, and experience the city. Residents' quality of life and how they promote the city.

In this sense, our study proposes the following research hypotheses:

H1: City communication influences the psychological well-being of residents;
H2: The atmosphere of the city influences the psychological well-being of the residents;
H3: City infrastructures influence the psychological well-being of residents.

2.2. Word of Mouth (WOM)

WOM has been studied since the 1960s in marketing (Arndt, 1967) and is defined in various ways. Litvin et al. (2008, p. 459) described WOM as "communication between consumers about a product, service or company whose sources are independent of commercial influence." With the advancement of the internet, personal interactions also began to be reflected online, giving rise to eWOM ("word of mouth" or "word of mouse"). In a highly competitive industry such as tourism, using WOM has brought critical competitive advantages to destination brands (Litvin et al., 2008). According to Baloglu and McCleary (1999), WOM to friends or colleagues is the essential source for creating tourist images of destinations. However, residents also play a leading role in this process. Their attitudes towards tourism help in the promotion (e.g., Ribeiro, Oom do Valle, & Silva, 2013) and creation of the destination image (Bornhorst, Ritchie, & Sheehan, 2009), influencing the visitors' experience (Gursoy et al. 2009; Wang & Xu 2015). Residents can also be tourists (Franklin & Crang, 2001), as they visit places and vacation in the regions close to where they live (Singh & Krakover, 2015).

Residents' support for tourism generates even more tourism (López et al., 2018). The communication carried out by cities has an increasingly decisive role in influencing tourist behavior. In this context, our study proposes the following research hypothesis:

H4: City communication influences word of mouth performed by residents.

Residents' support for tourism often results from the perception of socio-economic and environmental benefits resulting from tourism that affect their lives and attitudes (Jaafar et al., 2015). On the one hand, if the effects are positive, this will influence the positive WOM of residents (Lopez et al., 2018). Thus, it is important to involve residents in planning tourism practices that affect their quality of life (Malek & Costa, 2014) for the successful development of the destination brand (Eshuis, Klijn, & Braun, 2014). On the other hand, WOM is also influenced by the destination image (Qu, Kim, & Im, 2011) and by the attachment to the place (place attachment) that affects the behavior of residents (Chen & Dwyer, 2018). Residents' perception of the place is a credible form of information that helps to reduce the risk of purchasing the service and increases the notoriety of the place (Confente 2015), which makes WOM an increasingly influential factor in choosing the destination (Tasci & Gartner, 2007).

In this way, destinations should seek to develop marketing strategies that enhance positive WOM through residents and improve their quality of life, namely in the psychological dimension. In this sense, we propose to study the following research hypothesis: H5: Psychological well-being influences residents' word of mouth.

Thus, through the deduction of hypotheses, we propose to study the following conceptual model (figure 1):

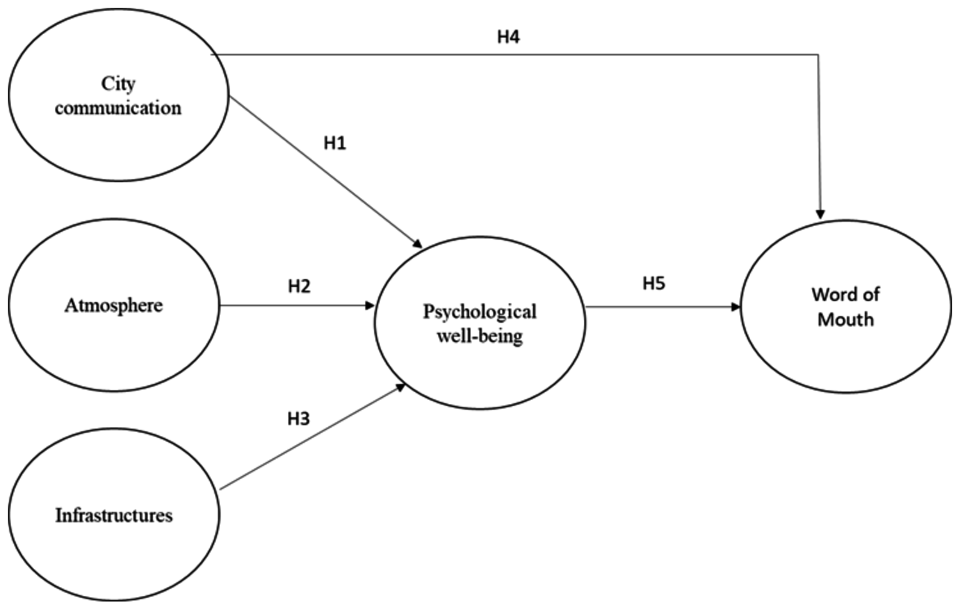

Figure 1 - Conceptual Model

3. Methodology

In order to validate the proposed conceptual model, we chose residents in Portugal as the population. Sampling was non-probabilistic for convenience, and data collection was conducted online between March and June 2020. The cross-sectional study presented here had as its unit of analysis a sample of 428 individuals whose characterization is shown in table 1.

Table 1 - Sample characterization

Variable	Category	N	%
Gender	Female	266	62,1
	Male	162	37,9
Age	< 20 years	57	13,3
	20 to 29 years	186	43,5
	30 to 39 years	44	10,3
	40 to 49 years	71	16,6
	50 to 59 years	36	8,4
	60 to 69 years	22	5,1
	> 70 years	12	2,8
Academic qualifications	Basic education	56	13,1
	High school	163	38,1
	Higher education	209	48,8

The research was carried out through a self-administered questionnaire by the participants. To measure the constructs, we adapted scales used by other authors. Thus, we adapted the scales by Gómez et al. (2015) for the infrastructure and the atmosphere construct. The items referring to the city's marketing communication construct were adopted from Węziak-Białowolska (2016), and for the psychological well-being construct, we used the scale presented by Macke et al. (2018). The items adopted for word of mouth were adapted from Ruiz-Mafe et al. (2018). In order to standardize the measurement scales, the investigation used 7-point Likert scales, ranging from (1) totally disagree to (7) totally agree.

4. Results

The results of this study were estimated through partial least squares estimation (PLS-SEM - Partial Least Squares - Structural Equation Modeling). This estimation method is suitable for exploratory research and does not require data normality to be observed (Hair et al., 2016). Data analysis via PLS-SEM is performed in two steps. First, we analyzed the reliability and validity of the measurement model, and second, we analyzed the relationships between the constructs as Hair et al. (2016) suggested. The PLS-SEM algorithm was run on SMART PLS v3.3.2 software (Ringle et al., 2015).

4.1. Common Method Bias

Due to the nature of the answers obtained and given that they could present some bias by the common method (Common Method Bias), we performed previous analyzes as recommended by Podsakoff et al. (2003). Thus, we performed Harman's single factor test, where the first factor represented 38.76% of the total variance. This value is below the threshold value of 50%, according to Podsakoff et al. (2003) recommend. Furthermore, we carried out successive analyzes of the possible existence of multicollinearity through the analysis of the VIF indicator (Variance Inflator Factor). In this analysis, we obtained VIF values (Table 2) between 1.404 and 2.854. These values are below the threshold value (VIF<5). In this context, bias by the common method does not appear to be a problem.

4.2 Measurement Model: Validity and Reliability

For the analysis of the validity and reliability of the measurement model, the research obtained the values indicated in table 3, which show that the average variance extracted (VEM) (with values in the range between 0.547 and 0.811) and the composite reliability (F.C.) (with values in the range between 0.877 and 0.928) is above the limit values (VEM>0.5; C.R.>0.7) (Bagozzi & Yi, 1988). Additionally, we found that Cronbach's α values (with values in the range between 0.834 and 0.886) and rho_A values (with values in the range between 0.854 and 0.935) are also above the minimum limits suggested by the literature (α >0.7; Rho_A > 0.7) (Hair et al., 2016).

Our study found that the standardized factor loadings are above the threshold value (λ >0.7) as recommended by Chin (1998).

Table 2 – VIF Coefficients, Means, and Standard Deviations of Items

Items	**VIF**	**Mean (Male)**	**Standard deviation (Male)**	**Mean (Female)**	**Standard deviation (Female)**
ATM1	2,434	4,74	1,326	4,92	1,325
ATM2	2,854	4,43	1,409	4,63	1,360
ATM3	2,439	4,60	1,353	4,68	1,397
BP1	1,986	5,22	1,211	5,32	1,334
BP2	2,404	5,33	1,323	5,66	1,294
BP3	2,374	4,96	1,584	5,12	1,629
COM1	2,325	5,13	1,343	5,33	1,316
COM2	2,453	4,86	1,482	5,05	1,399
COM3	2,201	5,61	1,296	5,52	1,425
I1	1,404	5,18	1,304	5,30	1,351
I2	1,552	5,40	1,288	5,61	1,193
I3	1,638	5,03	1,429	5,12	1,359
I4	2,184	4,70	1,462	4,85	1,323
I5	1,905	4,83	1,306	5,05	1,256
I6	1,760	5,14	1,328	5,21	1,316
WOM1	2,129	4,81	1,399	4,98	1,379
WOM2	2,489	4,90	1,336	5,00	1,318
WOM3	1,889	4,74	1,326	4,92	1,325

Notes: VIF=Variance Inflactor Factor; ATM=Atmosphere; BP=Psychological Well Being; COM=Communication; INFRA=Infraestructure; WOM = Word of Mouth

Table 3 – Reliability and Validity of Constructs

	Cronbach α	**rho_A**	**CR**	**AVE**
ATM	0,886	0,935	0,928	0,811
BP	0,863	0,865	0,916	0,785
COM	0,871	0,874	0,921	0,795
INFRA	0,834	0,866	0,877	0,547
WOM	0,851	0,854	0,910	0,771

Note: CR= Composite Reliability; AVE= Average Extracted Variance; ATM= Atmosphere; BP= Psychological well being; COM=Communication; INFRA=Infraestructure; WOM = Word of Mouth

In the expectation of verifying the validity of the measurement model, we analyzed the discriminant validity through the three methods provided by the SMART PLS software: Fornell and Larcker criterion (1981), cross-load analysis, and analysis of the Heterotrait-Monotrait correlation ratio (Henseler et al., 2015).

Thus, our analysis started by verifying the criterion of Fornell and Larcker (1981) and, through the results obtained (table 4), we confirmed that the interconstruction correlations are lower than the values of the square root of the extracted mean-variance.

Second, we observed discriminant validity using the cross-loading criterion (Henseler et al., 2015). Table 5 shows that the comparison of the values of standardized factor loadings (marked in bold) of each indicator is, in all cases, superior to the crossed loads concerning the remaining constructs.

In the third discriminant analysis, we analyzed the Heterotrait-Monotrait Correlation Ratio (Henseler et al., 2015). The values obtained (Table 6) confirm that the interconstruct Heterotrait-Monotrait correlations are below the maximum value suggested by the literature (HTMT<0.9) (Henseler et al., 2015).

Table 4 – Discriminant Validity: Fornell and Larcker Criteria

	ATM	**BP**	**COM**	**INFRA**
ATM	0,901			
BP	0,456	0,886		
COM	0,163	0,441	0,892	
INFRA	0,174	0,473	0,588	0,739
WOM	0,295	0,531	0,515	0,538

Notes: ATM= Atmosphere; BP= Psychological well-being; COM=Communication; INFRA= Infrastructure; WOM = Word of Mouth; all correlations are significant ($p<0.01$); on the diagonal are presented the square roots of the average variances extracted from the constructs.

Table 5 –Discriminating Validity: Cross Loadings

	ATM	BP	COM	INFRA	WOM
ATM1	**0,868**	0,311	0,077	0,089	0,215
ATM2	**0,910**	0,383	0,073	0,091	0,192
ATM3	**0,923**	0,498	0,247	0,252	0,356
BP1	0,426	**0,863**	0,368	0,379	0,439
BP2	0,429	**0,897**	0,383	0,421	0,455
BP3	0,360	**0,898**	0,421	0,453	0,515
COM1	0,137	0,383	**0,891**	0,533	0,469
COM2	0,091	0,371	**0,893**	0,501	0,429
COM3	0,201	0,423	**0,891**	0,538	0,477
I1	-0,080	0,194	0,331	**0,602**	0,331
I2	0,027	0,299	0,351	**0,668**	0,351
I3	0,155	0,318	0,439	**0,735**	0,436
I4	0,129	0,388	0,548	**0,840**	0,472
I5	0,192	0,476	0,501	**0,806**	0,387
I6	0,244	0,329	0,388	**0,759**	0,415
WOM1	0,228	0,482	0,424	0,414	**0,874**
WOM2	0,256	0,476	0,493	0,490	**0,908**
WOM3	0,294	0,440	0,438	0,512	**0,851**

Notes: ATM= Atmosphere; BP= Psychological well being; COM= Communication; INFRA= Infraestructure; WOM = Word of Mouth

Table 6 – Discriminant Validity: Ratio of Heterotrait-Monotrait Correlations

	ATM	BP	COM	INFRA	WOM
ATM					
BP	0,505				
COM	0,164	0,507			
INFRA	0,205	0,531	0,675		
WOM	0,295	0,531	0,515	0,538	

Notes: ATM= Atmosphere; BP= Psychological well being; COM= Communication; INFRA= Infraestructure; WOM = Word of Mouth

4.3 Results of the Structural Model: Hypothesis Test

Hoping to explore significant differences existing in the conceptual model between male and female individuals, we chose to create two distinct groups: Male Gender (N=162) and Female Gender (N=266).

In order to analyze the structural model globally, we observed the R2 values of the endogenous variables present in our conceptual model. Thus, the values in table 7 demonstrate that, although the explanation of the variable psychological well-being is higher in female individuals, the description of the word-of-mouth variable by the other variables in the model is higher in the group made up of individuals from the male gender.

Table 7 – Regression Coefficient

construct	R^2 (Male)	R^2 (Female)
BP	0,345	0,433
WOM	0,434	0,343

Notas: BP= Psychological well-being; WOM = Word of Mouth

Then, we evaluated the hypothesis test results by considering the coefficients of each trajectory present in the model, applying the bootstrapping procedure with 5000 subsamples. The results obtained for the group consisting of male individuals are presented in table 8, and the results obtained for the group consisting of female individuals are shown in table 9.

Indirect Effects

In addition to the research hypotheses studied, we found indirect effects between the constructs during the study since the PLS-SEM estimation allows us to evaluate the indirect effects present in the model. Thus, we present the indirect effects in the model for the group of male individuals (table 10) and the group of female individuals (table 11).

Table 8 – Structural Model (Male N=162)

Hypothesis	Path	β	t values	p values	Confidence Interval (95%)		f^2
					Inferior	superior	
H1	COM → BP	0,088	0,921	0,357	-0,100	0,274	0,007
H2	ATM → BP	0,340	5,294	0,000	0,204	0,454	0,162
H3	INFRA → BP	0,334	4,302	0,000	0,160	0,467	0,098
H4	COM → WOM	0,445	5,987	0,000	0,282	0,578	0,303
H5	BP → WOM	0,351	5,187	0,000	0,216	0,481	0,188

Notas: β= Standardized trajectory coefficients; ATM= Atmosphere; BP= Psychological well being; COM= Communication; INFRA= Infraestructure; WOM = Word of Mouth; f^2 = effect size

Table 9 – Structural Model (Female N=266)

Hypothesis	Path	β	*t* values	*p* values	Confidence Interval (95%)		f^2
					Inferior	superior	
H1	COM → BP	0,281	5,021	0,000	0,173	0,391	0,096
H2	ATM → BP	0,394	7,035	0,000	0,280	0,498	0,273
H3	INFRA → BP	0,270	4,607	0,000	0,145	0,377	0,089
H4	COM → WOM	0,282	4,616	0,000	0,162	0,400	0,094
H5	BP → WOM	0,401	6,149	0,000	0,260	0,518	0,190

Notas: β= Standardized trajectory coefficients; ATM= Atmosphere; BP= Psychological well being; COM= Communication; INFRA= Infraestructure; WOM = Word of Mouth; f^2 = effect size

Table 10 – Indirect effects (Male N=162)

Path	β	*t* values	*p* values	Confidence Interval (95%)	
				Inferior	superior
COM → WOM	0,031	0,850	0,396	-0,029	0,115
ATM → WOM	0,119	3,620	0,000	0,062	0,189
INFRA → WOM	0,117	3,278	0,001	0,056	0,192

Notas: β= Standardized trajectory coefficients; ATM=Atmosphere; BP= Psychological well being; COM= Communication; INFRA= Infraestructure; WOM = Word of Mouth

Table 11 – Indirect effects (Female N=266)

Path	β	*t* values	*p* values	Confidence Interval (95%)	
				Inferior	superior
COM → WOM	0,113	4,192	0,000	0,066	0,173
ATM → WOM	0,158	4,583	0,000	0,097	0,231
INFRA → WOM	0,108	3,297	0,001	0,050	0,176

Notas: β= Standardized trajectory coefficients; ATM= Atmosphere; BP= Psychological well being; COM=Communication; INFRA=Infraestructure; WOM = Word of Mouth;

5. Discussion and conclusions

To study the factors influencing word of mouth by the residents of the cities, we identified that the marketing communication of the city, the atmosphere of the territory, and its infrastructures influence the well-being of the residents and, consequently, the word of mouth of the residents.

To test the research hypotheses, we evaluated the structural coefficients (β) and the significance of each relationship using the Student's t-value and p-value. Furthermore, in each relationship found, we calculated the effect size value (f 2). According to Hair et al. (2016) the f 2 values represent, depending on the value presented, weak effects between the independent variables (f 2 ≤ 0.15), average effects (0.15 < f 2 < 0.35) or substantial effects (f 2 ≥ 0 .35).

In the analysis of hypothesis H1, the role of city marketing communication in explaining the psychological dimension of subjective well-being is not clear. If, on the one hand, we found that, in male individuals, the effects are non-existent, on the other hand, in the group made up of female individuals, the effects exist; they are significant although they are considered weak. Although the H1 hypothesis is not supported for the male subjects, it was statistically significant for the female group.

In the hypothesis test carried out on the relationship between the atmosphere of the territory and the psychological well-being of individuals, our study found that the effects in both groups (male and female) are similar. In this sense, we conclude that the atmosphere of the place decisively influences the psychological well-being of the groups of individuals analyzed. However, the effects appear to be stronger in the female group. Thus, we consider that hypothesis H2 was supported by our study in both groups of individuals.

Hypothesis H3 is supported by our study, although the existing effects are considered weak in both groups. Since the infrastructure construct is reflected in leisure activities, we consider that these results are due to items that reflect the concept of Gómez, Lopez, and Molina (2015). Individuals residing in cities may not use these infrastructures, which leads to the local infrastructures being of little significance in the psychological well-being of individuals. Another explanation we found for the weak effects of infrastructure on the psychological well-being of individuals is related to the fact that the minimum infrastructure a city should have, so the lack of such infrastructure in cities can reduce the well-being of individuals. Still, its existence does not necessarily imply greater well-being, namely at the psychological level.

Hypothesis H4 shows differences in analysis in comparing the two groups analyzed. In the study of male individuals, we found that the city's marketing communication significantly influences word of mouth made by individuals. However, in females, the significant effects are considered weak. Despite this, we assume that the study supports hypothesis H4. In testing hypothesis H5, we considered that the results in both groups are similar. Based on the results, we consider that the well-being of individuals living in cities influences their word of mouth. In this context, hypothesis H5 is supported in both groups.

6. Theoretical and Practical Contributions

Thus, in our study, we realized that the atmosphere and infrastructure of cities have relevant effects on the psychological well-being of individuals. Consequently, through indirect effects, our study also concludes that the atmosphere and infrastructure of cities influence word of mouth in both male and female individuals. This study also reveals that marketing communication by cities affects word of mouth differently. On the one hand, in males, the effects of communication in cities only directly influence word of mouth, with no indirect effects through psychological well-being. In the female group, word of mouth is directly affected by the communication of cities and indirectly through individuals' well-being.

Thus, we consider that there are practical contributions that emerge from the realization of this study. In this way, we believe that cities should have infrastructures that promote the well-being of the resident population through the existence of places where opportunities arise for individuals to spend their free time. In addition, we also consider that the managers of these cities should consider the atmosphere of cities. Thus, creating a calm and relaxing city provides greater well-being and, consequently, word of mouth dissemination of the city. Although the communication of cities has had different conclusions for the groups studied in this investigation, we consider that communication directly or indirectly influences word of mouth. Thus, we suggest that cities promote their best to their residents, making the necessary publicity, for example, for existing events.

7. Limitations and Future Suggestions

During this study, we found some limitations that may have contributed to the results presented. In this sense, we consider that the sample is mainly made up of individuals under 30 years of age may have been a limitation. Thus, we suggest that other samples be investigated. Our study only considered the psychological dimension of well-being. We believe investigating a conceptual model that includes physical well-being will have exciting results in this sense.

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The relationship of online trust with Consumer Generated Media: the case of Booking

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Abstract

Companies have undergone transformations in how they operate and promote their products and services, whether online and/or offline. As a result of this evolution, the tourism sector was not left out and consequently had to adapt to differentiate itself and ensure a competitive advantage. Thus, new innovative platforms emerged, such as Booking and TripAdvisor, that aggregate several services that tourism consumers increasingly use to plan and make their accommodation reservations. With the emergence of these platforms and the increased use by consumers, Consumer Generated Media (CGM) has emerged in parallel, growing exponentially and exerting a significant influence on booking tourist accommodation. The present research is based on a quantitative analysis utilizing a questionnaire survey based on the Trust Building Model. This model is divided into three main categories: website-based, company-based, and customer-based antecedents. Thus, we identified antecedents that influence online trust in CGM on the Booking platform and studied whether this trust affects the behavior of the travel consumer on the same platform, causing him to adopt the recommendations and practice eWOM. It was concluded that perceived source credibility, information quality, perceived website quality, user satisfaction with previous experiences, and user experience and knowledge are the antecedents that affect online trust in CGM.

Keywords: Booking, Online Trust, Consumer Generated Media, Trust Building Model

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1. Introduction

After the 50s of the 20th century, tourism began to gain more importance following the Industrial Revolution. The completion of the industrialization process in some countries, better living conditions, both economically and professionally, and the improvement of transport, allowed an increase in travel around the world (Akis, 2011). According to Gyr (2010), a new travel culture dubbed middle-class travel emerged, paving the way for recognizable mass tourism according to modern leisure concepts. For many years, tourism has been considered an activity and a strategic sector for the national economy. The Internet has made its mark on society by allowing people to come together and spread information (Pinto, 2014).

Currently, there are more than four and a half billion Internet users worldwide, with a higher incidence in the Asian continent representing more than half of the users (50.7%). Next is the European continent, with 16%, and in Portugal, Internet users correspond to 8 million (Internet World Stats, 2019). Research indicates that the Internet is an essential source of information dissemination, as tourists use it to plan their trips and share their experiences. In addition to sharing their experiences, it is also where they find such information, with 95% of Internet users saying they rely on information to help them in the decision-making process (Cox, Burgess, Sellitto, & Buultjens, 2009). Platforms such as Booking are increasingly used by travel consumers, as studies indicate that 4 out of 5 people book their vacations online using these platforms (ABTA, 2018). The present research aims to study the online trust in Consumer Generated Media (CGM) of the Booking platform. - Booking is currently one of the most used platforms by the Portuguese, having a high level of customer satisfaction regarding the service provided (Lu, Ting, & Hsu, 2017) and the CGM is becoming a source of information 50% more credible and reliable than others and appreciated by its users (Medium, 2017).

2. Literature Review

2.1. Tourism and the Internet

Tourism is defined as the activities that an individual performs during a trip, staying somewhere outside his or her residence, for less than a year, for leisure or business purposes and not performing a paid activity in the place he or she visits (OMT - World Tourism Organization, 1995). Nowadays, when it comes to planning a trip and, more specifically, booking tourist accommodation, the Internet has become a significant external source of information (Murphy, Chen, & Cossutta, 2016). As a result, a Virtual Tourism Community emerged, making it simpler for consumers to obtain information about destinations and prices, develop relationships, and eventually make the purchase decision easier (Stepchenkova, Mills, & Jiang, 2007). To Katz (2013), during the buying process, the tourist goes through six stages: dreaming, researching, planning, booking, experiencing and sharing. As a result, tourist habits change in the way they "(...) search, find, read, trust and produce information about tourism service providers and destinations" (Sigala, Christou, & Gretzel, 2016, p.7).

2.2. Consumer Generated Media

The phenomenon called CGM is gaining more and more relevance in the tourism sector, becoming the main source of information for consumers (Ayeh, Au, & Law, 2013). Digital platforms have brought a new paradigm to tourism. Through them, consumers are increasingly closer, thus lowering the barriers between them since they can now share their experiences with a product and/or service through comments, photos, and videos, among others. This type of content has a more significant impact and generates more positive attitudes than content generated by companies (Filieri & McLeay, 2013). So, Consumer Generated Media (CGM), also known by the Anglo-Saxon terms User Generated Content, Consumer Generated Content and User Created Content, refers to any content created and shared on the Internet in a public way that is available in various formats to an individual or a group of people (Daugherty et al., 2008; Freitas, 2016). In other words, CGM is related to digital transformation and refers to written reports, sounds and images of consumer stories about their travel experience that, on the one hand, can be used to verify the actual reputation of tourist accommodation and, on the other hand, contribute to recovering that reputation. The CGM provides information on the tourism industry, such as the experiences and opinions of particular tourist accommodations. That said, CGM is the opposite of traditional Media because it is not so easily controlled, thus significantly impacting the reputation of tourist accommodations (Albastroiu & Felea, 2014).

2.3. The Online Trust

In recent years, CGM has become more popular, and as a consequence, its users' trust has started to be questioned. There are many reports of fake reviews and stories of hotel managers posing as customers to write adverse reports of their competition to affect them. Due to this seemingly uncontrollable increase in false and promotional content on CGM, a concept such as online trust takes on particular relevance (Filieri et al., 2015). Many researchers have studied the issue of online trust, such as Jarvenpaa, Tractinsky, & Vitale (2000) and Beldad et al. (2010). There are several definitions for online trust, which can be defined in various ways, making there is no agreed-upon definition. For McKnight & Chervany (2001, p.1), online trust is defined as "an individual's belief about various attributes of the other party" involved in an e-commerce relationship and can be measured through, for example, attributes of fairness, kindness and strength. For Jarvenpaa et al. (2000), trust is a belief in integrity, benevolence and ability. Whereas for Beldad et al. (2010, p.1), trust is "considered a precondition for the adoption of services/products in electronic form." In the case of online trust, it is very important that organizations work well on their reputation, performance and appearance, appearance corresponding to website design, for example. While in offline trust, the object of trust is usually a person or an entity, in online trust, it is the technology and the information that is present on the website, such as the CGM (Beldad et al., 2010). For Filieri et al. (2015), CGM becomes available online without any supervision, and therefore, the trust of potential consumers towards it is excellent. This online trust can be based on several factors, such as the quality of the website, the credibility of the source, and the level of satisfaction with previous experiences, among others.

2.4. The Booking Platform

The Booking platform started as a small Dutch start-up founded in 1996 in Amsterdam but quickly grew into one of the largest companies in the travel industry. The platform is available in more than 40 languages and offers more than 28 million tourist accommodations. Booking operates in the business-to-consumer market because it sells its services to end consumers. In Portugal, Booking is widely used and, according to a study by Marktest (2019b), had a reach of 1 million 290 thousand individuals, ranking second in the e-commerce websites/platforms most visited by the portuguese, this being the justification for choosing Booking as the platform studied. Booking's value proposition is based on four concepts (Freitas, 2016; Laudon & Traver, 2013): I) Personalization and customization; II) Reduction of service search costs; II) Reduction of price comparison costs, and III) Facilitation of transactions. In order to be able to meet this value proposition and acquire a more detailed and more profound knowledge of the customer to make possible the personalization of communication and the customization of services, the Booking platform uses two types of tools: I) Clickstream behavior collects information from where the user clicks to the number of pages he visits, and II) Cookies store information about the user from the moment he enters the platform. Through the combination of these tools, the Booking platform acquires customer data such as name, age, gender, and preferences (Freitas, 2016; Laudon & Traver, 2013). In order to ensure the credibility of the source, the Booking platform only allows registered users who have stayed at the tourist accommodation to share their opinion about it through the CGM. With this rule, the platform intends to achieve reliable information, seeking to reduce at the time of purchase and/or reservation the cognitive dissonances in order to increase sales and demonstrate that the CGM present on its platform is of quality (Laudon & Traver, 2013; Barreto, 2015; Freitas, 2016).

3. Methodology

The objectives of this research are: I) To investigate the antecedents that influence online trust in CGM on the Booking platform; II) To understand if online trust in CGM affects the travel consumer behavior of the Booking platform.

The quantitative methodology, supported by a questionnaire survey, based on the model already used by Filieri, Alguezaui, & McLeay (2015), called Trust Building Model based on the model created by Beldad, de Jong, & Steehouder (2010). This approach was adopted based on non-probability convenience sampling (Thomas, 2003). The sample consists of respondents who, in the past 12 months, at the time of searching and/or booking tourist accommodations on the Booking.com platform, have used the CGM (images, reviews/comments, scores of the accommodation).

The model uses the antecedents of online trust and applies them to the CGM. In addition, it adds to the model two variables that will be studied as the consequences of CGM. Thus, by adopting this model, it is intended to investigate which antecedents and consequences influence online trust in the CGM applied to the travel and tourism industry, more specifically to the Booking.com platform and what consequences this leads to, as shown in Table 1. Thus, it is considered that online trust in CGM has consequences for the adoption/acceptance of the recommendations of reviewers/critics by purchasing the recommended product/service and promoting the website through the WOM (Filieri et al., 2015).

Table 1 – Antecedents that influence online trust

	Website-based antecedents	Company-based antecedents	Customer-based antecedents
Variables	Credibility of the perceived source Quality of information Perceived quality of the website	User satisfaction with previous experiences using the CGM	User experience and knowledge when using CGM

Source: Own elaboration, adapted from the model by Filieri et al. (2015)

3.1. Conceptual Map and Hypotheses

The hypotheses presented are based on the literature review and the research model by Beldad et al. (2010) and Filieri et al. (2015).

H1: Perceived source credibility positively influences online trust in CGM on the Booking platform.

According to Park, Lee, & Han (2007, p.128), the quality of information embedded in an online review is defined as "the quality of the content of a consumer's online review in the form of information characteristics". The more credible the information in online reviews, the more critical it is in decision-making (Cheung et al., 2009). Therefore, if consumers feel that information in online reviews is reliable, current, valid, valuable, and meets their needs, they will trust the CGM.

H2: The quality of the information in online reviews positively influences online trust in Booking's CGM.

"*The quality of the information in online reviews affects consumers' perception of the perceived source's credibility*" (Filieri, 2015, p.1263). This means that online reviews that contain valid arguments, and current, accurate, complete and detailed information about a product, develop a positive attitude in consumers and believe more in its credibility. On the other hand, online reviews that contain invalid arguments, with a short, superficial, emotional and inaccurate description of the product development in consumers a negative attitude, rejecting its credibility (Cheung et al., 2009; Fanoberova & Kuczkowska, 2016; Filieri, 2015; Filieri et al., 2015).

H2.1: Information quality positively influences perceived source credibility.

The main challenge for the hotel industry operating online is to convert the website visitor into a buyer (Chang, Kuo, Hsu, & Cheng, 2014). Nevertheless, this requires that the website is appealing and that its information is quality. The quality of the information on the website, that is, in online reviews, can be considered an antecedent of the perceived quality of the website. When a website has a CGM, created by online reviews, which is considered to be of quality, it means that the website lives up to expectations. The perceived quality of the website may derive from the features it offers to the consumer, security and privacy, and page loading speed, among others. Consequently, consumers interpret that the CGM present on it is quality and allows them to make an informed purchase decision (Filieri et al., 2015).

H2.2: Information quality positively influences the website's perceived quality.

For Filieri et al. (2015), if the quality of the information on the website is convincing, good and acceptable to the consumer, it will affect their satisfaction. Consumers visit websites with CGM mainly to consult and extract information from former consumers who have tried a particular product or service and shared their opinions/experiences. If this information helps the consumer to effectively choose which tourist accommodation and plan their trip, they will be satisfied and have their needs met and will most likely return to the website in the future (Bai, Law, & Wen, 2008).

H2.3: Information quality positively influences user satisfaction.

For Yang, Cai, Zhou, & Zhou (2005), website quality refers to the consumer's perception of the website's performance in extracting and providing information. Combining a website's information quality and good design improves online consumer trust (Fung & Lee, 1999; Harrison McKnight, Choudhury, & Kacmar, 2002). The quality of a website can be assessed through ease of navigation, communication, privacy, and security, among others. A website does not have a "face", so the first impressions that the consumer has in the interaction area, i.e. the homepage, are formed there. If the CGM on a given website forms a positive impression, the consumer will more quickly come to trust it (Filieri et al., 2015).

H3: Perceived website quality positively influences online trust in the CGM of the Booking platform.

By encouraging the sharing of opinions and experiences among consumers, websites containing CGM are making consumers more satisfied and able to arrange trips on their own (Filieri et al., 2015; Litvin, Goldsmith, & Pan, 2008). If a website can meet consumers' needs by making their tasks easier, the greater their satisfaction will be (Filieri et al., 2015).

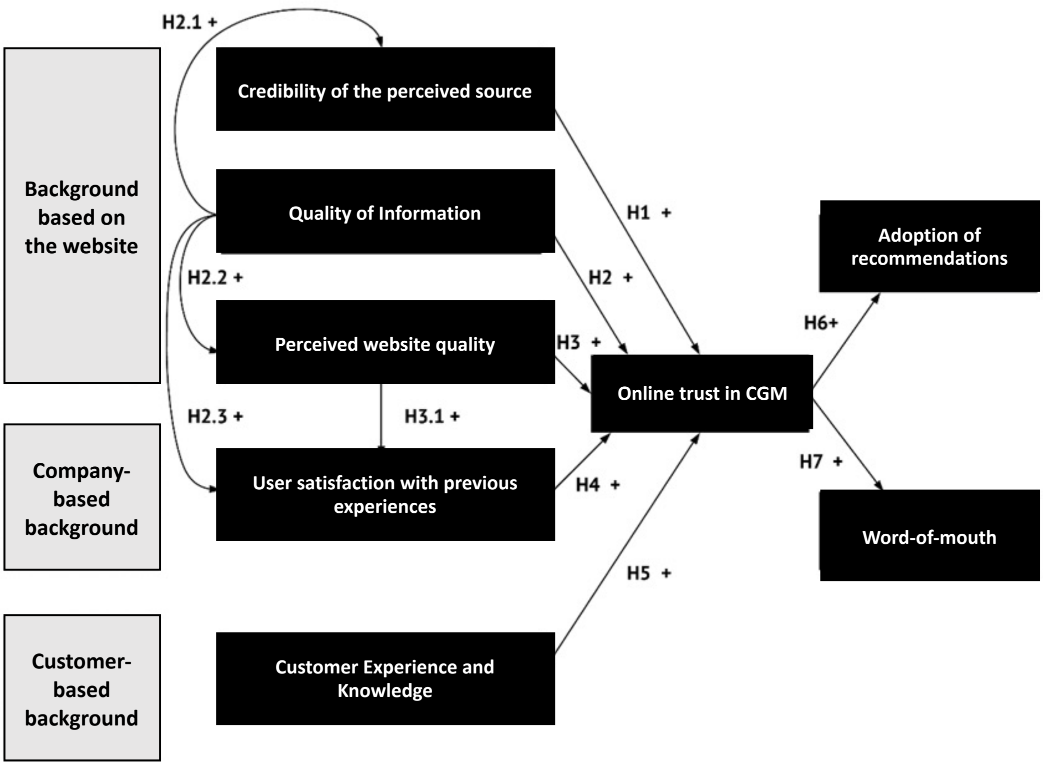
H3.1: Perceived website quality positively influences user satisfaction.

Customer satisfaction is measured as a customer's overall satisfaction based on all their cumulative experiences with a company, a product or a service (Olsen & Johnson, 2003). According to Casalo, Flavi and Guinaliu (2007), Flavián, Guinalíu & Gurrea (2006), Pavlou (2003) and Yoon (2002), cited by Filieri et al. (2015), a positive previous experience determines customer trust. The better the previous experience with the website and the information received, the higher the level of trust the consumer will have about it (Beldad et al., 2010; Boyd, 2003). When consumers plan their trips using websites containing CGM, they want it to help them improve their decision-making. If the information contained in the CGM allows the consumer to find tips, advice and reliable experiences, he will be satisfied. However, if he finds information contained in the CGM that is false, emotional and biased, it is very likely that the consumer will not be satisfied and will tend not to trust the website. At the same time, consumers who are satisfied with their previous experiences feel more open to trusting the recommendations received through the CGM (Filieri et al., 2015).

H4: User satisfaction with previous experiences positively influences online trust in the CGM of the Booking platform.

The level of experience in using the CGM and those in the decision-making process may be relevant factors to consider when investigating the antecedents of online trust (Beldad et al., 2010; Filieri et al., 2015). Brown, Broderick, & Lee (2007) argue that customers with little experience may become naïve and believe all the information they find on the Internet. According to Corbitt et al. (2003), cited by Filieri et al. (2015), the lack of experience can lead to naivety and credibility of all information on the Internet because a consumer who is experienced in using the CGM feels capable enough to understand if it is trustworthy and is present on a trustworthy website that does not contain false reviews. On the other hand, a consumer inexperienced in using CGM remains more withdrawn and cautious.

Figure 1 - Conceptual model



Source: Own elaboration, adapted from the model by Filieri et al. (2015)

H5: Customer experience in using CGM positively influences online trust in the CGM of the Booking platform.

According to Cheung et al. (2009), information adoption is the process by which people become engaged with the use of information. For Senecal & Nantel (2004), in the 37 areas of tourism, the recommendations of other users for a particular service are even more critical than in other areas because they are intangible products. In the context of CGM, Filieri et al. (2015) believe that the higher the trust in online recommendations, the more likely consumers are to follow them. Nevertheless, to do so, they need to believe that the website with those recommendations is impartial and not at risk of being misled.

H6: Online trust in the Booking platform's CGM positively influences the adoption/acceptance of online recommendations.

Consumers who believe the CGM is worthy and trustworthy are more willing to share this information with their close friends and acquaintances (Filieri et al., 2015). That said, the following hypothesis is formed:

H7: Online trust in the CGM of the Booking platform positively influences Word-of-mouth.

The conceptual model is presented in figure 1.

4. Discussion

This study applied a quantitative methodology and non-probability convenience sampling. We obtained 237 valid answers and used the statistical program SPSS IBM Version 26. In the first phase, an analysis of the demographic and behavioral data of the individuals belonging to the sample was applied. Then, more specific tests were performed, such as reliability tests, Linear Regression analysis, and t-tests.

In Table 2, the results of the hypotheses tested are systematized, and it can be concluded that all the hypotheses tested were validated.

Table 2 - Systematization of the results of the hypotheses tested

Hypothesis	Pearson Correlation	Result
H1+	0,563	Validated
H2+	0,516	Validated
H2.1+	0,503	Validated
H2.2+	0,552	Validated
H2.3+	0,522	Validated
H3+	0,603	Validated
H3.1+	0,646	Validated
H4+	0,761	Validated
H5+	0,506	Validated
H6+	0,642	Validated
H7+	0,514	Validated

Source: Elaboration and own data

Throughout the research, it was possible to see that online trust in CGM is affected by several factors. Currently, online trust in CGM is being threatened by the credibility and quality of information, specifically online reviews, due to the increase in fake and paid content by managers to increase sales of a product or service (Filieri et al., 2015).

The relationship between perceived source credibility and online trust in CGM was measured, and it was found that there is a positive relationship between these. However, in the original study, the authors argue that source credibility does not influence trust because, for them, consumers are aware that fake profiles are easily created, and not all sources are considered credible (Filieri et al., 2015). However, the results present in this research evidence that consumers are aware that the reviewers were credible, experienced, trustworthy and reliable, making the consumer feel confident towards the reviewers. This difference between the original study and this one may occur because the first study was conducted for the TripAdvisor platform, which does not restrict the creation of profiles. In contrast, the Booking platform tries to limit the comments associated with profiles only to contain 100% original, unique and credible comments.

The relationship between the quality of the information in online reviews and how these affect trust in the CGM was also measured. After the research, it was found that the better the quality of online reviews, the more consumers tend to trust CGM. The quality of the information was also measured to see if it would affect the credibility of the source, the perceived quality of the website, and user satisfaction. Moreover, the results showed that if the information in the online reviews is valuable, useful, timely and meets the consumer's needs, it will make the consumer trust CGM. That being said, one of the main reasons for online trust in CGM is the quality of information that consumers find because it will affect several variables, and if the quality of information is high, consumers will be satisfied and continue to trust CGM (Filieri et al., 2015). It was concluded that the perceived quality of the website affects not only online trust in the CGM but as well as satisfaction with previous experiences, which is in line with studies already conducted which state that if the CGM present on a particular website forms a positive impression on the consumer, the consumer will more quickly come to trust it (Filieri et al., 2015; Litvin et al., 2008).

Regarding the correlation between user satisfaction with previous experiences and online trust in CGM, it was concluded that a consumer satisfied with their previous experiences tends to trust CGM online, which is in line with other research already conducted and which states the same (Beldad et al., 2010; Boyd, 2003).

Regarding the correlation between the variable customer experience and knowledge in terms of navigating and using the CGM, it was noticed that it is a factor that influences online trust because, through the analysis, the correlation value was positive. This means that a more experienced user can trust the CGM less than a less experienced user can become naive and believe all the information they find (J. Brown et al., 2007; Filieri, 2015).

Finally, concerning online trust and its consequences, it was realized that if the consumer, when trusting the CGM, tends to adopt the online recommendations and pass the word (WOM) to their friends and acquaintances, the results are in line with a study already conducted by Cheung et al. (2009) that concluded the same. In short, the higher the level of online trust in the CGM, the more affected is the consumer's behavior is influenced in their decision-making and their behaviors (Filieri et al., 2015).

5. Conclusion

The growth of the Internet and the increase in its use by the Portuguese, combined with the development of new web 2.0 applications, has triggered a new reality in the tourism sector. The tourist is now dominated by information, making more comparisons between them, and giving great importance to their peers and the evaluation systems available on platforms such as Booking or TripAdvisor. Information in tourism is now accessible by anyone at any time, playing a vital role in this area, which we call CGM. In the tourism industry, consumers are more active in how they search for this type of content and in how they share it. Regarding the WOM concept, through the literature review and this research, we conclude that this is a consequence of CGM because when the consumer accepts what is transmitted to him through the CGM, he will pass the word to his friends and acquaintances. Therefore, a model composed of 8 variables was proposed based on a model already tested by Filieri et al. (2015). To understand if the online trust in the CGM would have consequences for the adoption/acceptance of the reviewers' recommendations by purchasing the recommended product/service and promoting the website through the WOM, a questionnaire was developed with 237 valid answers. The sample was made up entirely of Portuguese, mostly females (68.4%), and 92.4% were aged between 18 and 54.

As for the use of the various types of CGM, the respondents stated that the type of CGM most used by them are texts/comments (83.1%), followed by photos/images (73.4%) and accommodation scores (68.8%). Regarding frequency, more than half of the respondents stated that they used the platform's CMG quite frequently in the last 12 months and the last month. Through the descriptive analysis of the variables, it was perceived that in the variable "Credibility of the perceived source", the respondents partially agreed that the reviewers/critics were credible, experienced, trustworthy and reliable. Regarding the variable "Quality of information", the respondents agreed that the information in the online comments was timely, relevant, met their needs and was helpful. They also stated that they partially agreed that the information present in the online comments was valid or credible.

Regarding the variable "Perceived quality of the website", respondents agreed that the Booking platform is easy to use and responsive and can access from several devices. Also, in the variable "Perceived quality of the website", respondents partially agreed that the hyperlinks were well organized, the platform provided customized search functions, had a fast page load and guaranteed privacy. On the variable "User satisfaction with previous experiences", respondents said they were satisfied with the information they received through the platform and their previous experiences. In the variable "Customer experience and knowledge", respondents considered themselves quite experienced when using and navigating the CGM and online recommendations. On the variable "Online trust in CGM", respondents agreed that the information offered by the platform was sincere and honest, the advice and recommendations were made for the mutual benefit of reviewers/critics and customers, and the platform was trustworthy. In the variable "Adoption of the recommendations", the respondents agreed that online reviews made their purchase decision more accessible, increased their effectiveness in making a purchase decision, and motivated them to make a decision. The same respondents stated that the last time they read online reviews, they adopted/accepted consumer information and that the information in the online reviews contributed to their knowledge of a particular product and/or service. On the word-of-mouth variable, respondents sometimes mentioned to others that they looked for travel information on the Booking platform and made sure that others knew that they trusted the Booking platform for travel information. They also stated that they often spoke positively about the Booking platform and recommended the platform to close friends. It was possible to see that the credibility of the source is a factor that influences online trust in CGM. As for the quality of information, it was realized that the better the quality of information consumers find, the more they perceive the website to be of quality, which will lead the consumer to be more satisfied, tending to trust CGM. Furthermore, the perceived quality of the website affects not only the online trust in CGM but also the user's satisfaction with their previous experiences, and a secure website guarantees the consumer's privacy and is easy to use will make the consumer feel more confident to "accept" the information present in it.

The correlation between user satisfaction with previous experiences and online trust in CGM concluded that a consumer satisfied with his previous experiences tends to trust CGM online. A more experienced user, on the other hand, can trust CGM less than a less experienced user because less experienced users may be more naive and believe all the information they find. The results also proved that online trust affects two types of consumer behavior, the adoption of recommendations motivating them to buy or not a product and helping them to make a decision, and the WOM making them share with their friends that they were satisfied with the information they found.

To the defined objectives, it was concluded that the credibility of the perceived source, the quality of the information, the perceived quality of the website, the user's satisfaction with previous experiences, and the user's experience and knowledge are the antecedents affect online trust in CGM. In addition to these antecedents, adopting recommendations and WOM are the consequents of online trust in CGM, which affect consumer behavior. Finally, it was understood that all the antecedents and consequences that encompass the research are the factors that influence online trust in the CGM, being that the antecedent based on the company that corresponds to the variable "User satisfaction with previous experiences" was the one that showed a higher level of correlation with the trust with a value of 0.761.

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- destination marketing and niche tourism;
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- entrepreneurship, competitiveness and innovation in small and medium-sized companies;
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Editorial

Volume 1, Issue 2

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Editorial

In the second edition of our journal, we start with a selection of scholarly works encompassing five traditional papers: two systematic literature reviews related to innovation in business models and design thinking, and three empirical papers focused on marketing and tourism. Notably, this edition marks the inauguration of a new section titled "Innovation in Teaching & Learning," dedicated to showcasing papers related to innovative teaching methodologies and projects implemented in higher education, aligning with the focal areas of our journal. Two additional papers bring into spotlight distinctive teaching and learning initiatives undertaken in two higher education institutions.

Kicking off the edition is Lucio Marques Peçanha's comprehensive systematic literature review, centering on business model innovation in small and medium-sized enterprises (SMEs). Employing a final sample of 122 records from Web of Science, the author utilized R software and VOS Viewer for bibliometric analysis, identifying five clusters. Through content analysis, these clusters were characterized, culminating in the development of a theoretical framework for SMEs' business model innovation.

The second paper belongs to Fatma Demir and colleagues. The authors focused on SMEs and developed a systematic literature review on design thinking and innovation strategy, presenting a systematic literature review on design thinking and innovation strategy. Drawing from a final sample of 70 papers sourced from Web of Science – Current Contents, the authors leveraged Endnote for descriptive statistics and NVivo for content analysis. The paper identifies prerequisites for implementing design thinking in SMEs, shedding light on success and failure factors.

The third contribution, authored by Anabela Marcos and Ana Rita Silva, explores the antecedents and consequences of Apple brand love. Based on a questionnaire-based survey with 215 respondents, the authors applied structural equation modeling. Their findings underscore the pivotal role played by the hedonic attribute of the product, brand experience, and brand satisfaction in fostering Apple brand love, which, in turn, contributes to loyalty and positive word-of-mouth.

The fourth paper belongs to Luzia Arantes, who focuses on digital marketing and sustainable tourism. Using structural equation modelling, she analyzes data collected through a questionnaire-based survey involving 422 respondents. The results reveal the role of sustainable measures in influencing tourists' adoption of sustainable behaviors. The ensuing model delineates the advantages of digital marketing and social networks in fostering a resilient environment for the tourist market in Portugal.

The fifth and final traditional paper, co-authored by Sónia Sousa-Silva and Laurentina Vareiro, investigates the perceptions of hospitality professionals and local communities regarding LGBT tourism. Combining data from 143 accommodation units in northern Portugal and an online questionnaire survey with 240 respondents, the study identifies discriminatory behaviors towards LGBT tourists that warrant correction. While the local community displays overall hospitality towards LGBT tourism, instances of reluctance and discrimination, particularly among males with lower education levels, were identified.

In the newly introduced "Innovation in Teaching & Learning" category, Liliana Vitorino and colleagues share their experiences with the Case-Based Learning (CBL) method. Implemented in a Design and Marketing of New Products class at Leiria Polytechnique Institute, undergraduate students collaborated on developing sustainable packaging to address a company challenge over a two-month period. Both the company and the students indicated they were satisfied with the results.

Concluding this edition is a paper by Sandra Filipe and colleagues, detailing an innovative project undertaken at Universidade de Aveiro. Involving three teachers and 300 students from the bachelor's in marketing (second and third year) and master's in competitiveness and business development (first year), the project focused on sustainability concepts and sustainable development goals. Incorporating diverse teaching and learning methods, interactive technologies (Kahoot! and Padlet), and real-world applications, the results were positively assessed by both students and teachers.

We extend our gratitude to all contributing authors, the editorial team, reviewers, and our community for their invaluable support in shaping this second edition. We trust that these seven papers will serve as a valuable resource for scholars interested in the realms of marketing, innovation, and forward-looking pedagogy.

Happy readings!

International Journal of Marketing, Innovation and Strategy

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Business Model Innovation in SMEs
A Systematic Literature Review

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Abstract
To innovate in their business model, small and medium-sized enterprises (SMEs) have to be open to innovation, i.e., open to new technologies and sustainable practices among other possible strategies. The sustainability is crucial in this as the circular economy is growing as a new paradigm and the digital transformation and industry 4.0 are building knowledge around it. The organizations must, therefore, be aware of these contemporary practices and try to include the sustainable perspective into their business models. Many scholars produced knowledge related to business model and innovation, yet no systematic literature review (SLR) relating business model innovation to SMEs was found. Therefore, this SLR explains that phenomenon by answering to three research questions: (1) How the studies of business model innovation have evolved? (2) What are the challenges that SMEs have to struggle to innovate their business model? and (3) What are the trends in the study of business model innovation? A total of 247 documents retrieved from the Web of Science database were submitted to the analysis protocol. The final sample of 122 records was submitted to bibliometric analysis using the R software and VOSviewer software. Additionally, there was a content analysis of the articles to find trends, identifying clusters and presenting the results of condensed information in the form of tables and figures. Those results allowed the proposal of a framework for business model innovation in SME. At last, the conclusions and future studies agenda are presented to support new studies.

Keywords: Business Model Innovation, Small and medium-sized enterprises, Sustainability, Digital transformation, systematic literature review.

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1. Introduction

Business model innovation (BMI) is gaining the spot as a hot topic in management research. The huge momentum it has gotten in recent years is the reflection of about 20 year's continuous development. The importance of business models for the sustainability and competitiveness of small and medium-sized enterprises (SMEs) is certainly flourishing. Upon the emergence of the COVID-19 crisis, the SMEs have found in the digitalization a path to innovate in the way they do business. (Filser et al., 2021; Strakova et al., 2022; Giotopoulos et al., 2022). The crisis also created significant challenges to industries due to changes in consumption patterns and government measures (Singh et al., 2022).

Latifi and colleagues (2021) point out that BMI promotes enormous and irreversible alterations in key components of a company's business model, i.e., modification in the core of the business and brings along elevated risk, ambiguity and uncertainty. Many organizations fail to obtain the results they expect when implementing the designed innovations in their business models. Chen and colleagues (2021) say that SMEs face more challenges than big companies when trying to renew their business operations. They act, in most cases, reacting to the need imposed by the market, while bigger organizations have more conditions to plan the modifications and test it in different settings to find the best alternative. Business model experimentation is highly important for the development of a new business model (Molina-Castillo et al., 2022).

The digital era leads the way for significant changes in society and have been modifying the way firms do business. Internalization, digitalization and sustainability are growing paths for firms nowadays, with the digital transformation being a relevant aspect for innovation and business renewal (Garzella et al., 2021; Denicolai et al., 2021). BMI can positively contribute for the performance of SME and generate competitive advantage (Anwar, 2018). A study conducted by Asemokha and colleagues (2019) shows that BMI and entrepreneurial orientation (EO) are important drivers for the performance of internationalizing SMEs.

The sustainability arises as a factor of influencing change in organizational business model as the transition to a circular economy has been in the center of discussions among governments, industries and the civil society (Bashir et al., 2022; Uvarova et al., 2021). Marucci and colleagues (2022) say that the circular economy replacing the linear paradigm is a key point that SMEs have struggled to incorporate in their business models. Therefore, the study of the incorporation of the sustainable principles into the core of business model focusing on the SMEs is high relevant.

Small and medium-sized enterprises, in order to achieve digital development, need to conduct investments in information and communication technology (ICT) infrastructure, according to Giotopoulos and colleagues (2022). Strakova and colleagues (2022) states that the stability and development limitation of SMEs relates to the degree of digitalization of corporate processes. The capacity to innovate the business model became a high factor to survive competition especially for SMEs facing the need to keep up with international competition in a globalized world. (Garzella et al., 2021; Von Joerg & Carlos, 2022).

The BMI is capable of create a firm´s advantage and improve SMEs performance (Latifi et al., 2021). Many studies have been conducted to identify important aspects of Business Model Innovation (Guimaraes et al., 2021; Magni et al., 2022; Herrero-Luna et al., 2022; Suchek et al., 2022). Although there is a relevant increase in studies related to business models and innovation combined, there is a lack of studies relating it to the context of SMEs. Filser and colleagues (2021) present a bibliometric analysis related to business model innovation and pointed out the study of the SMEs context as a trend.

The unique contribution of this paper is to synthesize the studies related to business model innovation and small and medium-sized enterprises to generate the first systematic literature review (SLR) of business model innovation in SME. In the end, this study aims to be able to answer to three research questions:

- How have evolved the studies of business model innovation?
- What are the challenges that SMEs have to struggle to innovate their business model?
- What are the trends in the study of business model innovation?

The first question shall be answered by performing a bibliometric analysis that demonstrates the evolution of the studies concerning this field. To answer the second question, it is necessary to perform the content analysis of the records in order to find what has been identified so far about the challenges to innovate in SMEs business models. To answer the third question, it is mandatory to identify the clusters within the sample. After that, the trends shall be identified and organized in a table of proposed future studies.

The reading of the articles allowed the identification of five thematic groups: innovation business model, SME business models, sustainability, digital transformation and industrial innovation. Among the results, the review found that small and medium sized enterprises could engage in business model development by getting involved in a regional innovation ecosystem as BMI demonstrate to be a crucial element to explain the firm's performance.

In the next sections of this paper, we show the methods adopted in the research, the systematic literature review itself, as well as the identified clusters and present a framework for the business model innovation in SMEs. At last, we present the final considerations and references used.

2. Methods

To bring forth a broad understanding of the most recent findings related to the business model and innovation in SMEs, this article carried out a critical and systematic literature review. The research protocol was conceived following the study of Agrawal and colleagues (2022) that conducted a reliable and replicable systematic literature review.

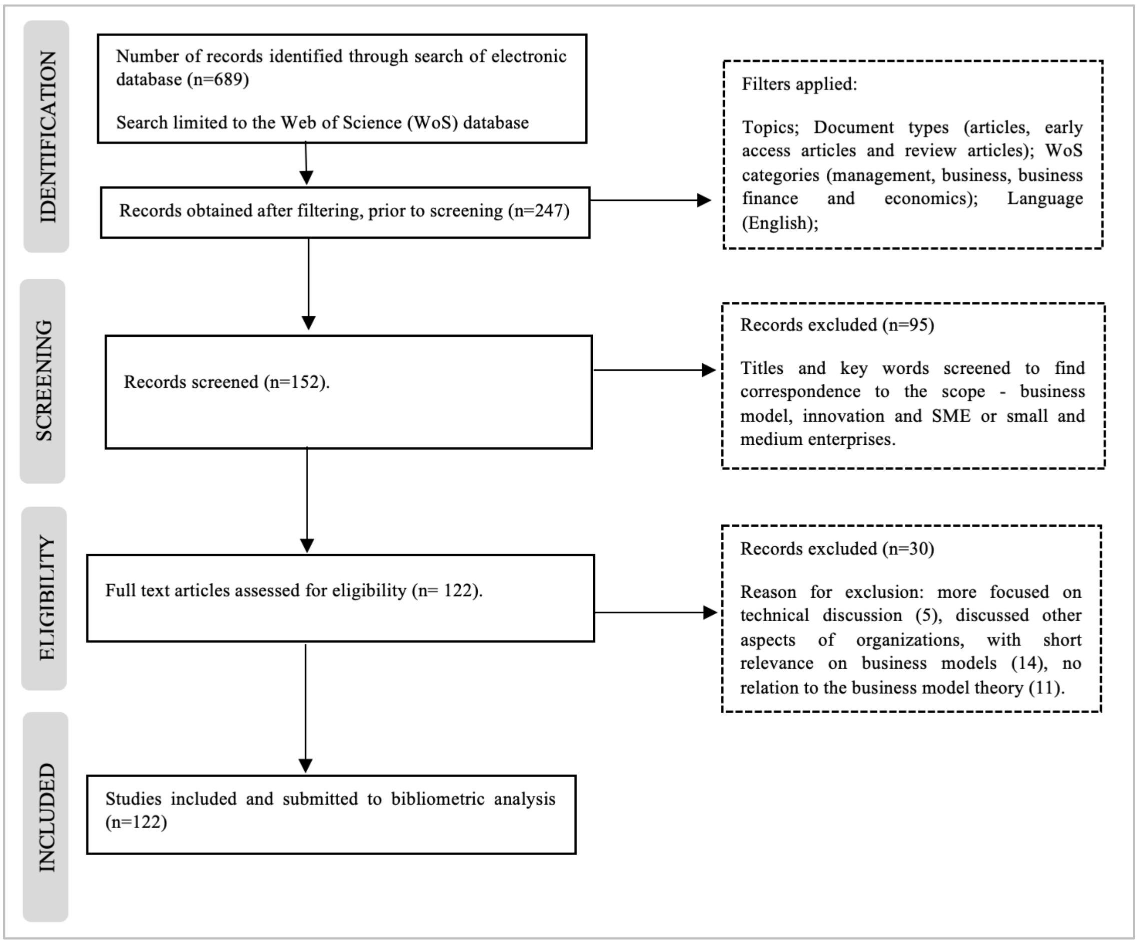

Figure 1 – Representation of the methodological approach

Source: Adapted from Haddaway and colleagues (2022)

The articles incorporated in this SLR derived from the Web of Science (WoS) database. A search by topics for articles was conducted based on the criteria established using the query “(("Business Model*") AND ("Innovat*")) AND (("SME*") OR ("Small and medium ent*"))”. The aim was to identify investigations surrounding the fields of business models and innovation related to small and medium enterprises considering the categories “Management, Business, Economics and Business Finance”. Articles (including early access) and review articles in the English language with no time restriction were additional filters adopted in the search.

The outcome generated a total of 247 articles that were submitted to the protocol, based on the study of Haddaway and colleagues (2022), as described in Figure 1, to be properly analyzed in this study.

This research used the VOSviewer and R Studio software to conduct a bibliometric analysis of the final 122 records obtained. Then, the procedure combined the bibliometric to a content analysis of the articles to find trends, identifying clusters and presenting the results of condensed information in the form of tables and figures. Those results were the base to the proposal of a framework and to foster the conclusions and future studies agenda.

3. Results and discussion

3.1. Research profile

The business model and innovation have been object of study combined since 2003. The search developed in this study could only find articles written between 2003 and 2022, as seen on table 2. The 122 articles were published in 71 different sources with an annual growth rate of 18,46%. The collaboration is a factor identified as only 10 documents are single authored and the remaining 112 present a mean of 3,2 authors per document.

Table 1 – Main information about data

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2003 - 2022
Sources (Journals, Books, etc.)	71,00
Documents	122,00
Annual Growth Rate %	18,46
Document Average Age	2,60
Average citations per doc	24,30
References	7.573,00
DOCUMENT CONTENTS	
Keywords Plus (ID)	359,00
Author's Keywords (DE)	421,00
AUTHORS	
Authors	354,00
Authors of single-authored docs	10,00
AUTHORS COLLABORATION	
Single-authored docs	10,00
Co-Authors per Doc	3,20
International co-authorships %	34,43

Source: Own elaboration

Among the 78 sources identified, Table 2 shows the 10 most prolific publishers. Combined, the first four sources represent 21,3% of the total amount of publications identified. The data retrieved from the Web of Science and analyzed using the R studio software demonstrated the most relevant authors, i.e., the authors that published more articles related to the focus of this study.

Table 2 – Most relevant sources

Sources	Articles
Journal of Business Research	10
International Journal of Innovation Management	6
R & D Management	5
Technology Analysis & Strategic Management	5
Business Strategy and The Environment	4
Journal Of the Knowledge Economy	4
Journal Of Manufacturing Technology Management	3
Journal Of Small Business and Enterprise Development	3
Technological Forecasting and Social Change	3
Technology Innovation Management Review	3

Source: Own elaboration

Table 3 illustrates that Anwar, Bouwman, Kraus, Torkkeli, with four articles each, and Clauss, Cucculelli and Mueller, with three articles each, are the authors that produced more for this field in collaboration with other authors.

Table 3 – Most relevant authors

Authors	Articles
Anwar M	4
Bouwman H	4
Kraus S	4
Torkkeli L	4
Clauss T	3
Cucculelli M	3
Mueller J	3
Bettinelli C	2
Breier M	2
Buliga O	2

Source: Own elaboration

3.2. Keyword and citation analysis

According to Agrawal and colleagues (2022), the keyword statistic is used to analyse the frequency of relevant keywords of the articles in the title and keyword sections. Different keywords are frequently used since the authors have different perspectives in the development of their research. In the fields of business models and innovation related to SMEs it is also observed and the keywords analysis is so important because of that. Using the R software, a word cloud was created to demonstrate the most frequent keywords used by the authors, as seen in Figure 2.

Figure 2 – Word Cloud based on the article keywords

Source: Own elaboration

The 20 most frequently used keywords used are shown in Table 4. These are the most used keywords from a total of 790 keywords. Business model, business model innovation and SMEs appear as the most common words used. The plural and singular variations of these words are seen too. The sustainability, circular economy, entrepreneurship, internalization and open innovation are other terms that caught the attention based on this analysis.

Table 4 – Most frequently used keywords

Words	Occurrences	Words	Occurrences
business model	43	open innovation	6
business model innovation	38	digital transformation	4
SMEs	33	digitalization	4
SME	18	enterprises	4
innovation	16	absorptive capacity	3
business models	11	ambidexterity	3
sustainability	10	business	3
circular economy	9	collaboration	3
entrepreneurship	9	competitive advantage	3
internationalization	8	covid-19	3

Source: Own elaboration

In order to highlight the most cited documents among the collected sample, Figure 3 presents a citation analysis, based on the documents obtained, using the Vos Viewer software. It reveals that Mueller (2018) and Coreynen (2017) are the most cited articles with 385 and 262 citations respectively, followed by Jenkins (2009) and Mangematin (2003), the only articles published in their respective year and mentioned as responsible for the high average for the total citations observed.

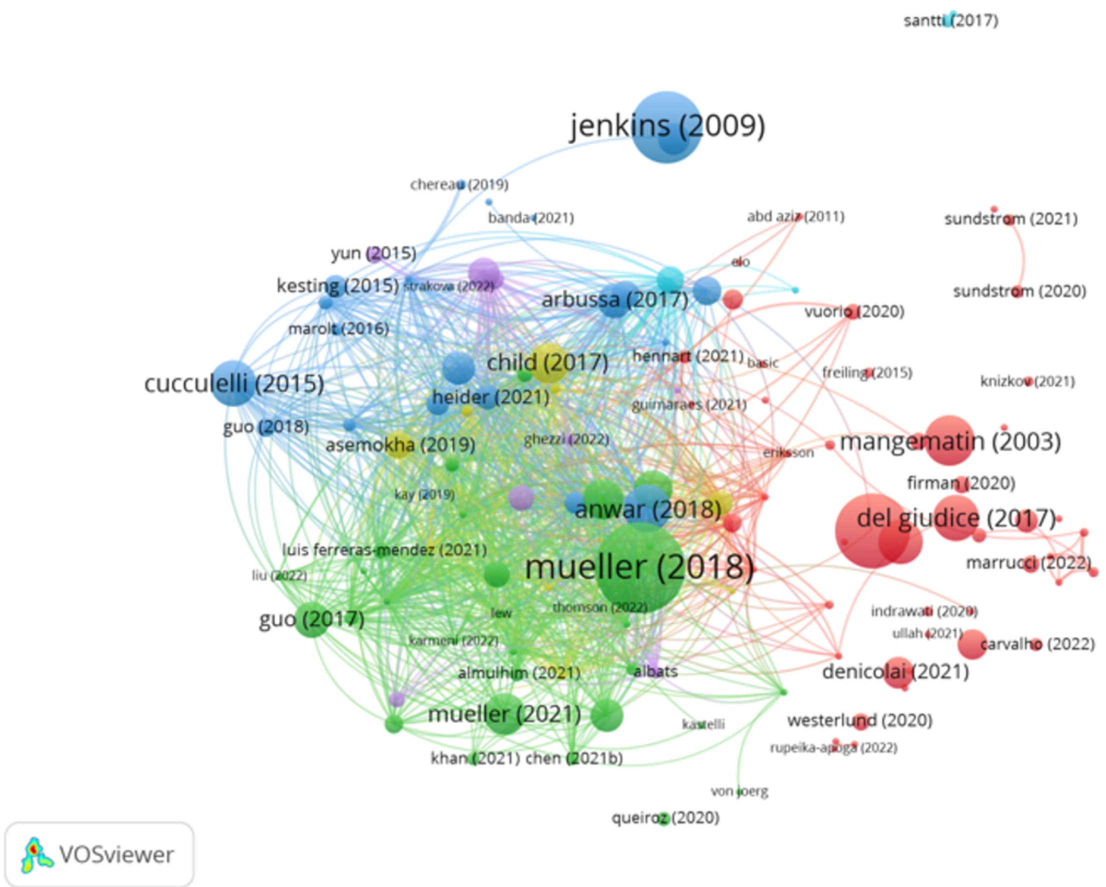

Figure 3 – Citation analysis based on the documents

Source: Own elaboration, using VOSviewer

3.3. Identified clusters

The documents from the Web of Science database were analysed using the VOSviewer software to identify the relation among the keywords for clustering the articles. Figure 4 represents the result of the analysis. Five clusters were identified and, after that, the articles were grouped and submitted to content analysis.

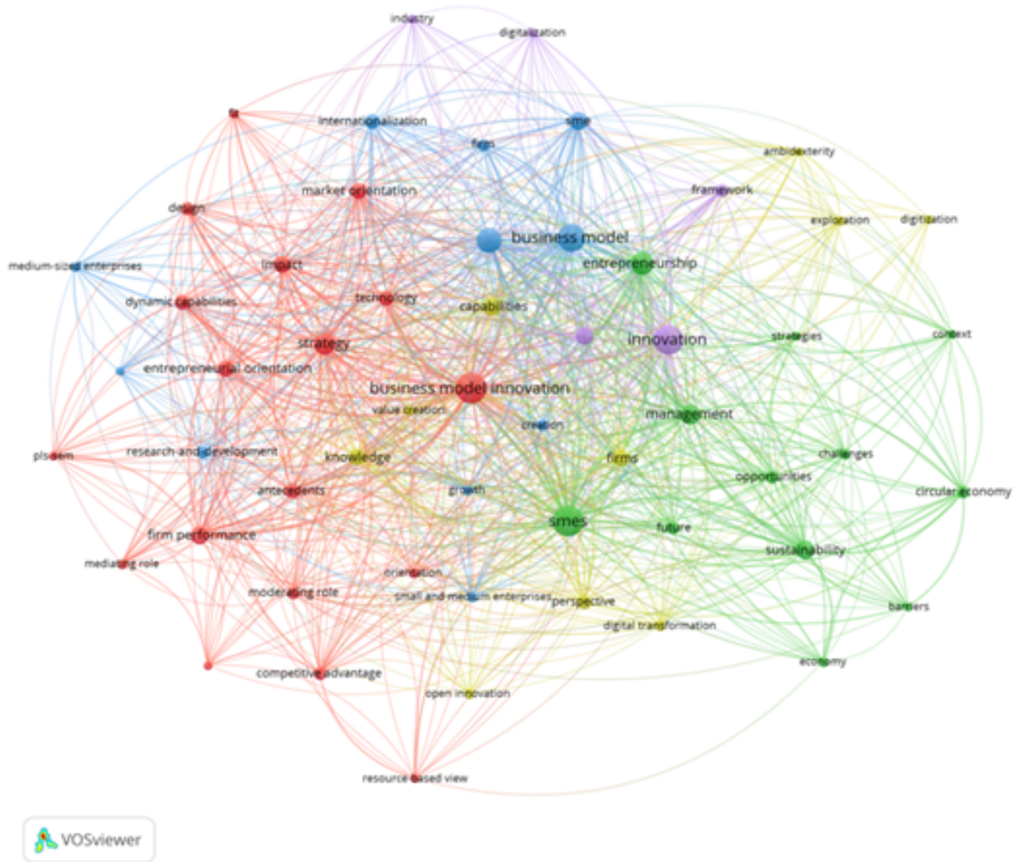

Figure 4 – Keyword analysis

Source: Own elaboration, using VOSviewer

The Innovation and Business Model cluster was divided in three subgroups – innovation, dynamic capabilities and firm performance. The SME Business Models was divided in two subgroups – SME business model and business models. The third cluster is Industrial Innovation. The fourth cluster identified is Digital Transformation and it was divided in two subgroups – digital transformation and open innovation. The fifth and last group is sustainability. The key findings related to these clusters are shown in Figure 5. After that are presented relevant aspects of each of these clusters.

3.3.1. Innovation business model

The fast-changing business environment made the Business Model Innovation (BMI) study increasingly important (Marolt et al., 2016). Firms should set BMI among the most important strategic decisions to take considering that it represents a relevant signal of an open business model and may contribute to the financial and nonfinancial performance of the enterprise (Guo et al., 2018; Ghezzi et al., 2022; Al-Nimer et al., 2021). The continuous development of new technology that brings changes to business environment, make a push on the patterns and systems used by the organisations, what breaks the old guarantee that the business would last forever as it was conceived. According to Ammar & Chereau (2018), this innovation in business model can take a large range of differentiations, from the firm's entrepreneurial choices to administrative or engineering choices.

Changes in the BM bring a positive effect in the ability of an organisation to improve its performance. The smart technologies are helpful for the firm performance as they connect the firms with the digital transformation. The BMI involves the search to create and capture value in different ways, by the acquisition of external resources and its integration and adaptation to internal capabilities (Cucculelli & Bettinelli, 2015; AlMulhim et al., 2021; Denicolai et al., 2014).

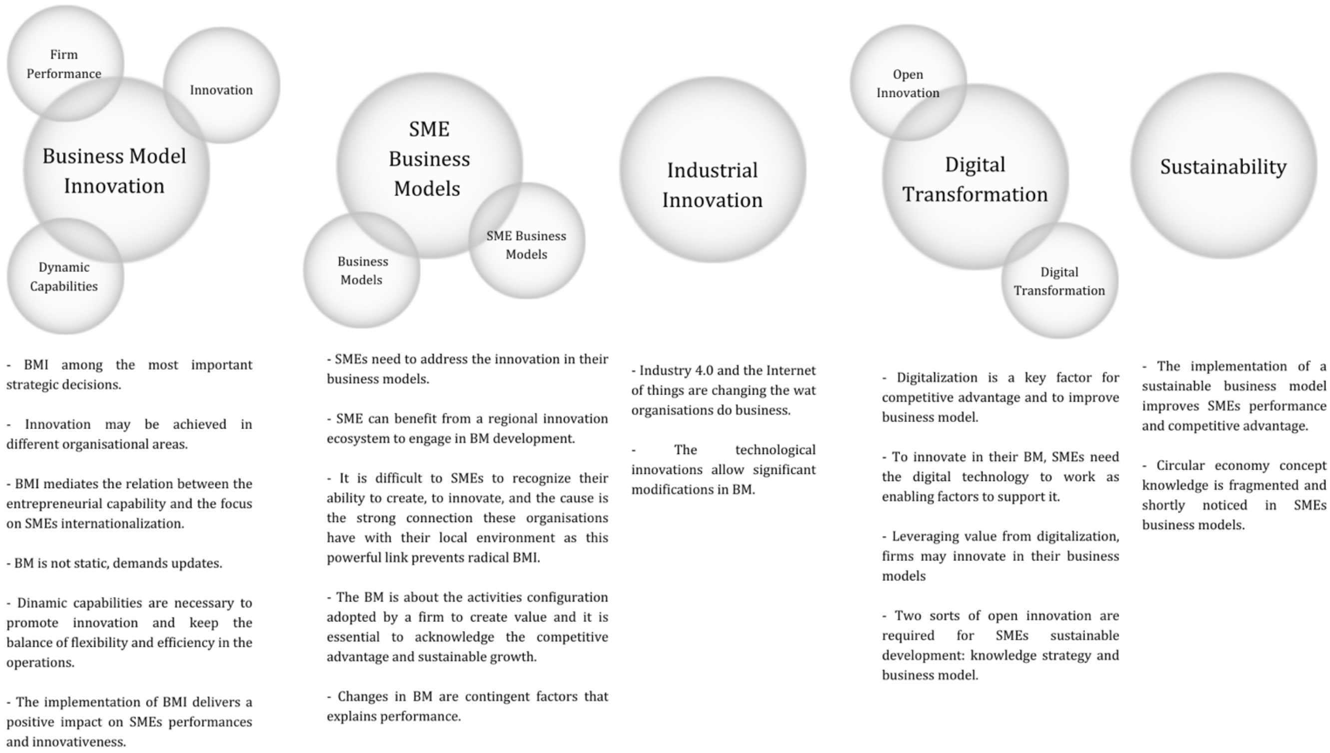

Figure 5 – Identified clusters related to the study of business model innovation for SMEs

Source: Own elaboration

3.3.2. SME business model

To be able to compete and survive in the contemporary global market the SMEs need to address the innovation in their business models. The markets change in a fast pace and the small and medium sized businesses have to find ways to meet their clients' expectations in order to remain relevant to them. The Industry 4.0 can assist the SMEs in speeding up their growth targets and turn into more innovative companies as innovation helps to trail a path to sustainable competitiveness and smart growth. (Von Joerg & Carlos, 2022; Cosenz & Bivona, 2021; Gerlitz, 2016). Heikkila and colleagues (2018) imply that the SMEs may take different innovation paths in terms of business model depending on their strategic goals.

3.3.3. Industrial innovation

The innovation is unstoppable, people have to accept change and so the organisations. The industry 4.0 is changing the way organisations do business. Technologies such as the Internet of Things (IoT) allow companies to manage their business around the world and improve the products and services in a faster way. (Ekiksson et al., 2022; Paiola et al., 2022).

These technological innovations may be considered the usher for firms, even those established, to promote significant modifications in the BM. The BMI process is incremental based on experimentation and learning. It intermediates the relation between information technology capabilities and organisational performance and between this last one and the entrepreneurial orientation. (Mueller et al., 2021; Paiola et al., 2022; Ullah et al., 2022).

3.3.4. Digital transformation

Digitalization is a pivotal element for organisations seeking competitive advantage and improve their business model. (Andersen et al., 2022) The crisis developed by the arise of Covid-19 created the need for a significant change in BM for SMEs worldwide as open innovation more and more became an issue to be addressed and finally became the lifeline for many firms. Industry 4.0, Web 2.0, servitization and social media networks assist SMEs as valid networking and information content opportunities to address and retain customers, creating value and improving revenue (Muller, 2019; Jabeen et al., 2022; Gutierrez-Leefmans & Holland, 2019). Industrial, commercial and value servitization can be enabled for companies using digitalization (Coreynen et al., 2017).

3.3.5. Sustainability

The sustainability is a hot topic for practitioners and academia research related to BMI and it promote a wider spectrum for the SMEs performance and competitive advantage by the implementation of a sustainable business model (SBM). First globalization and recently the COVID-19 crisis pushed small and medium enterprises in the innovation way, to find innovative capabilities to compete local and internationally (Bashir et al., 2022; Clauss et al., 2022; Lee et al., 2012). SBM requires that the organisation advance on sustainability practice along its entire supply chain in order to achieve success in the implementation (Machion et al., 2022).

SMEs find in B Corp certification a remarkable alternative to engage in sustainable practices as it certifies social and environmental performance and requires the organisation to promote changes in mission, practices and capacities (Carvalho et al., 2022). In order to engage in these sustainable practices and innovative performance, SMEs need financial support locally or internationally and the government should be aware of that necessity since these companies can contribute to a nation economic growth (Ullah et al., 2021).

4. Framework

The clusters analysis demonstrates that there is an inter connection between the articles. In order to demonstrate that relation, Figure 6 presents a framework for business model innovation in SMEs.

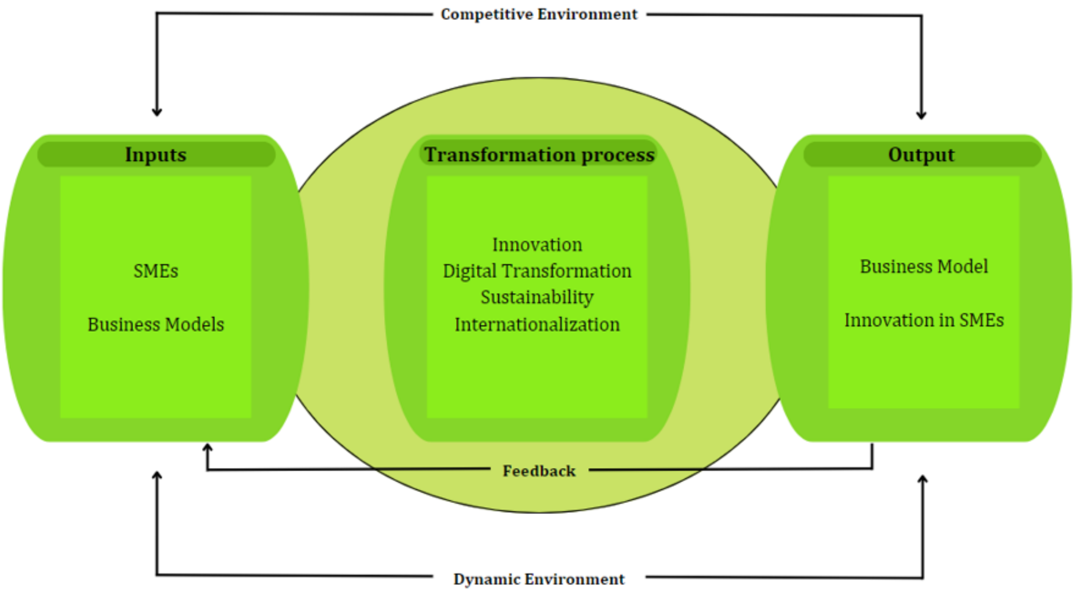

Figure 6 – Framework for business model innovation in SME

Source: Own elaboration

SMEs need to bring changes to their business models in order to be able to compete in today's market and create value. The transformation process requires the SMEs to innovate process in many ways, adapting the firm to absorb the digital technologies and take advantage from it. At the same time, the firm has to establish sustainable development policies that can be facilitated by the adoption of certifications such as B Corp, or by finding place in a regional ecosystem. That process of opening to innovation additionally brings internationalization perspective and, by that, wider market opportunities. That transformation process of an outperformed BM into an innovative one generates the business model innovation in SMEs as output. The whole process is conducted within a dynamic and competitive environment. Therefore, constant feedback during the process is necessary.

5. Conclusions, limitations and future studies

This study is a SLR addressing business model innovation in SMEs. A bibliometric analysis using VOSviewer and R software was made in combination with content analysis of the 122 articles sample retrieved from Web of Science. In the course of the research, the studies published so far related to business model innovation and small and medium-sized enterprises were integrated to generate the results and discussions of the previous section.

The first question answered in this paper was how the studies of business model innovation have evolved? This question was answered through the bibliometric analysis developed using the R software. The analysis showed the evolution of the studies about business model innovation. The second research question asked: what are the challenges that SMEs have to struggle to innovate their business model? The content analysis of the articles was mandatory to answer this question. Most SMEs find it difficult to identify the innovation they produce, since its day-by-day activities and seems common to them (Blloslavo et al., 2022). To innovate in their business models, SMEs have to be open to innovation. The sustainability is crucial in this as the circular economy is growing as a new paradigm and the digital transformation and industry 4.0 are building knowledge around it.

The ultimate research question was: what are the trends in the study of business model innovation? The SLR demonstrates that business model innovation is a trend itself. Most SMEs do not focus on innovating their business model and are not familiar with concepts such as circular economy, digital transformation and Internet of Things. Firms that are aware of these concepts tend to be more innovative, internationalized, focused on sustainable development and digital transformation.

Established SMEs need support to innovate in their business models. A future study should be undertaken to identify what kinds of assistance the governments and international agencies promote to incentive established organisations to be more innovative. Born sustainable companies and start-ups have the innovation in their core, but many manufacturers and other industries do not access it. Future studies should try to identify specific dynamic capabilities required for the implementation of BMIs. Additionally, SMEs encounter challenges when it comes to effectively managing knowledge, which hinders their ability to pursue innovation. Therefore, leaders within these organizations should address these limitations in order to foster a culture of innovation. Another future study proposition is about the sustainable business model. This hot topic is poorly explored in the literature and the SMEs are aside of it.

This SLR documents a large amount of information concerning the BMI in SMEs, yet it has limitations. The sample was retrieved from the Web of Science database and was limited to articles and review articles in spite the fact that there are other databases that might have a great amount of high-quality information that was not gathered.

Besides the limitations, this research has potential to affect academics, practitioners, policy makers and other people interested in the development of this field of study and there is a lot more to dig in the process to assimilate it.

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Design Thinking and Innovation strategy by SMEs for competitiveness: a review

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Abstract

Throughout the world, small and medium-sized enterprises (SMEs) are recognized as integral components of the economic landscape. Historically focused on domestic markets, since the late 1990s, SMEs have found themselves operating within a globalized marketplace characterized by increasingly discerning customers and intense competition. This newfound global exposure presents a considerable challenge for SMEs, given that many of them possess limited resources and capabilities, often lacking the capacity to establish and sustain a structured innovation management system. In light of this backdrop, this paper embarks on a systematic literature review aimed at exploring the nexus between Design Thinking, innovation, and competitiveness within the context of SMEs. The study involved the retrieval of 308 papers published between 1998 and 2021 from ISI Web of Science – Current Contents. These papers underwent comprehensive analysis with the help of Endnote 20 and NVivo 20, encompassing both bibliometric and content-based analysis. Subsequently, a refined sample of 70 papers, directly related to the research question, was isolated following the application of the exclusion criteria. The findings of this study underscore the need for the development of an innovation framework tailored specifically to SMEs, to seamlessly integrate Design Thinking processes while maintaining alignment with overarching corporate strategy. This holistic approach to innovation management is poised to play a pivotal role in enhancing the competitive standing of SMEs in today's complex and dynamic business landscape.

Keywords: Design Thinking, SME, Innovation, Systematic literature review, Innovation strategy

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1. Introduction

New technologies and evolving markets have been posing new challenges and opportunities for companies. The significance of corporate innovation management is on the rise, even for small and medium-sized enterprises (SMEs), which often struggle with resource constraints while playing a pivotal role in their respective nations' economic landscapes, a role expected to persist in the near future (van de Vrande, de Jong, Vanhaverbek, & de Rochemont, 2009).

This study addesses a relevant research gap marked by heightened interest but a scarcity of comprehensive overviews concerning the realm of Design Thinking within SMEs, including its implications for innovation capacity (van de Vrande, de Jong, Vanhaverbek, & de Rochemont, 2009).

This type of research inquiry is well-suited to literature reviews, which offer an orienting service, elucidate connections and disagreements in prior research, and establish a grasp of the theoretical concepts and terminology within the field (Williams, Clark, Clark, & Raffo, 2020). Notably, prior literature reviews fall short in filling this particular research gap, as indicated by the ensuing results from our systematic literature review, presented in the subsequent sections.

The decision to conduct a literature review is typically motivated by three primary factors: the nature of the research interest, the attributes and scope of preceding reviews, and the phenomenon of information proliferation (Williams, Clark, Clark, & Raffo, 2020). In today's information-rich environment, maintaining a comprehensive understanding within specialized domains is a daunting task due to the sheer volume of available data, often challenging to access.

The choice of a systematic review methodology, particularly in terms of its complexity, hinges on the primary research objective and the overarching constraints of the research context (Crossan & Apaydin, 2010). The most important considerations for the preparation of a systematic literature review chiefly revolve around formulating a clear, focused research question, as all subsequent processes hinge directly on its formulation.

For this study, a broad research question aligns with the overarching aim of comprehensively exploring the research field, particularly the developments within innovation strategy (Wardati & M.., 2019). Given the comprehensive scope of this work and its specific focus on innovation strategy within the framework of Design Thinking, intentionally broad research questions have been posed:

- Which factors contribute to shaping a Design Thinking innovation strategy, and how can they be systematized?
- What obstacles and barriers are responsible for the failures encountered in implementing systematic innovation management systems within organizations?
- How has the scholarly output pertaining to the Design Thinking innovation strategy evolved concerning the specific case of SMEs?

To address these questions, this paper is organized as follows. First, it introduces the concept of design thinking within the context of SMEs. Subsequently, it outlines the methodology employed and presents the findings from the systematic literature review. Finally, it discusses the implications of the results and presents the conclusions.

2. Creative Development Approach Design Thinking in SMEs

In the realm of SMEs, the role of entrepreneurs is key for the implementation of Design Thinking. This has a bigger significance compared to large corporations since it can be reasonably assumed that within SMEs, the introduction of Design Thinking into a single department is unlikely to occur without the knowledge and endorsement of the entrepreneur. In SMEs, the entrepreneur bears the responsibility for the successful execution of innovation strategies, including Design Thinking (Mortati & Cruickshank, 2011).

The level of commitment from the entrepreneur is high. While in larger organizations, especially during the initial stages of a project, implementation can commence on a smaller scale, eventually garnering support from top management as initial project results materialize (Judy & Savatore, 2011), SMEs need the focus and direct involvement of the entrepreneur in operational aspects as a prerequisite for Design Thinking implementation (Geldermann, Lerche, & Sepulveda, 2018).

Furthermore, if, in addition to the routine business operations, there is limited time available for the creation and utilization of reflective Design Spaces (e.g., repositioning the design thinking space into a cloud-based virtual environment) (Lim, Kim, Kim, & Kim, 2019), it can be argued that the willingness to engage with an approach likely unfamiliar to the entrepreneur and misaligned with conventional business thinking will be limited (Moultrie, Clarkson, & Probert, 2006).

To ensure the successful implementation of Design Thinking within SMEs, specific success factors tailored to SMEs are required. Time resources and budgetary allocations are key for effective innovation implementation (Acklin, 2013). However, the prerequisites for SMEs in this regard diverge from those of larger enterprises. Large corporations often maintain dedicated research and development departments (inclusive of creative spaces), along with innovation managers or Design Thinking experts. Consequently, they possess the necessary infrastructure and personnel to evaluate new approaches like Design Thinking (Acklin, 2013).

Conversely, in SMEs, employees typically engage in such endeavors alongside their routine work responsibilities, and there are fewer specialized departments with designated experts. Additionally, SMEs typically exhibit caution when considering the implementation of innovative strategies such as Design Thinking, requiring a clear understanding of the anticipated benefits beforehand (Acklin, 2013). In contrast, large corporations are generally more inclined to allocate resources and space to pursue optimization and innovation.

3. Systematic Literature Review: Innovation Strategy Design Thinking in SMEs

3.1. Research Design

This study is underpinned by a systematic literature review, a methodology that differs from traditional reviews in its pursuit of synthesizing research through a methodical, transparent, and iterative process (Crossan & Apaydin, 2010). The fundamental principles of systematic reviews encompass transparency, focus, equity, accessibility, concreteness, homogeneity across research and practice communities, and the ultimate achievement of synthesis. In essence, systematic reviews offer a clear and organized approach to managing research knowledge, serving as a manifesto for both the scientific and practical domains (Crossan & Apaydin, 2010).

The primary objective of this systematic review is to structure the realm of research pertaining to Design Thinking and its application within the context of SMEs. This endeavor aims to identify the researched topics, enumerate the most notable research gaps, and, consequently, contribute to the development of theory in this domain.

A systematic review entails a dual-pronged approach encompassing quantitative, bibliographic analysis and more qualitative, thematic analysis (Saur-Amaral, Reis Soares, & Proenca, 2018). Although systematic reviews can encompass various types of publications, we have adhered to the precedent set by fellow researchers by focusing exclusively on peer-reviewed academic journal articles in the English language. This selective approach ensures the quality of the included studies while also maintaining a manageable sample size.

Regarding the temporal scope of our review, we contend that Design Thinking has garnered substantial attention and witnessed pronounced interest from practitioners and international researchers in the last two decades. Therefore, our review encompasses academic papers published from 1998 to 2021, encapsulating the substantial developments in this field during this period.

3.2. Data Collection

To pinpoint the pertinent literature on innovation related to Design Thinking within SMEs, a systematic literature review was carried out. The initial step involved delineating the search terms and keywords. We exclusively considered literature published in the English language to maintain consistency and ease of analysis. Moreover, to uphold the quality of the included literature, we exclusively focused on journals indexed in ISI/WoS.

On April 4, 2021, we conducted a comprehensive search of the extensive Web of Science database spanning the publication years from 1998 to 2021. Search queries within the Web of Science database were initially crafted, and subsequent hit lists were refined and extended as necessary (refer to Table 1).

Table 1 - Preliminary search terms for the systematic literature review

	Search term	Results	Purpose	Criticism
Surface search	"Innov*" (Current Contents Connect)	169,307	Edition of all works that contain a combination of words all about "innovation", "innovate", "innovative" etc. included	Too many hits, not very specific, usually wrong context
	"Innov*" AND "SME*" (Current Contents Connect)	2,804	Restriction of the works from the first query to those containing the term "SME*"	Too general, context continues to vary greatly
	"Design Thinking" (Current Contents Connect)	602	Overview of the hits on the topic Design thinking in general	Consolidation of the topic of Design Thinking without direct reference to the topic of innovation
Advanced search	"Design Thinking" AND "Innov*" (Current Contents Connect)	308	Specification of the previously made request. Limitations to works that are explicit engage in Design Thinking in the field of innovation management.	Strongly limited search space
	"Design Thinking" AND "Innov*" – related to specific research areas	70	Sample of selected articles to analyse and import to NVivo	Very Strongly limited search space, for importing it to NVivo

Source: Own elaboration

This preliminary step aimed to provide an initial assessment of the volume of available literature. Central works within the designated subject area and specific journals, equipped with comprehensive table of contents and bibliographic information, were employed as reference points. As a result, the effectiveness of the search terms was evaluated following a cursory examination of the results. Subsequent refinement of the search queries was undertaken to further narrow down the scope of results, as the initial outcome remained excessively broad. Ultimately, the investigation was restricted to the results derived from the combination of the terms "Design Thinking" and "Innov*" and 308 distinct articles remained. The final search query incorporated the exact word sequences "Design Thinking" AND "Innov*" in Title (see Table 1).

Table 2 - Exact search term for the systematic literature review

Database	Exact search term	Number of articles
Web of Science – Current Contents Connect	"Design Thinking" AND "Innov*" in Topic	308

Source: Own elaboration

To manage this body of literature, all 308 entries were exported to Endnote and a list of abstracts was created. Each paper underwent a scrutiny of its title and abstract for content relevance specifically related to Design Thinking and innovation. The following exclusion criteria were applied:

- Contributions that primarily considered Design as human-centered problem-solving.
- Those that predominantly focused on the specific design of objects, methods, or products.
- Works predominantly situated within Design Science, encompassing the advancement of specific methods or exploring the mindset of designers, without direct application to Design Methods for innovation.
- Entries that broadly and indiscriminately employed the term "Design Thinking," especially in the context of SMEs.
- Entries that did not align with these criteria were systematically excluded.

This rigorous screening process yielded a final sample of 70 literature entries, which were included in the subsequent analysis in NVivo 10.

During the manual content analysis of the abstracts, apart from identifying potential sources of knowledge, specific content pertinent to SMEs was extracted. Additionally, we singled out barriers or failures in the realm of innovation as a valuable tool for analysis through the lens of failures. As a result, we obtained a synthethic perspective over the topic, based on the 70 papers, that allowed us to integrate the findings and discern differences, commonalities, and factors contributing to innovation failures, shedding light on the related research landscape.

3.3 Descriptive Data Analysis

A descriptive analysis of the 308 articles in question unveiled that the first article linking Design Thinking and innovation within the sample emerged in 2007 (as depicted in Figure 1). Notably, starting from 2008, a discernible upswing in the number of articles becomes evident. This surge can be attributed, at least in part, to the Special Issue of the Harvard Business Review in 2008, featuring the highly-cited (1,060 citations) article "Design Thinking: Thinking like a designer can transform the way you develop products, services, processes - and even strategy" authored by IDEO CEO Tim Brown. This publication significantly amplified interest in the subject matter (Brown, 2008). Notably, the year 2020 marked the highpoint with a remarkable 77 contributions.

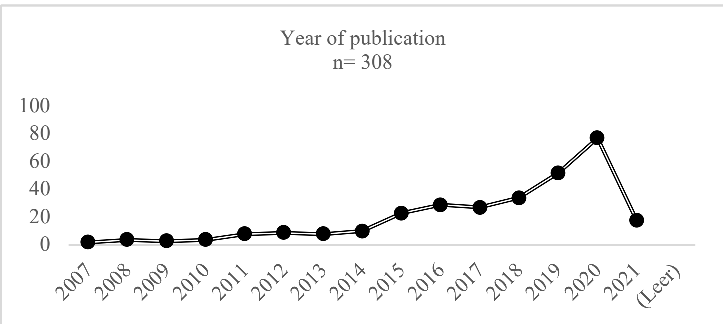

Figure 1 - Publications per year

Source: Own elaboration

Figure 2 considers the 152 most frequently occurring journals. The journal with more publications is Design Journal, by far a regular in the publications associated to design thinking and innovation, followed by International Journal of Engineering Education, Creativity and Innovation Management, Journal of Cleaner Production and Sustainability.

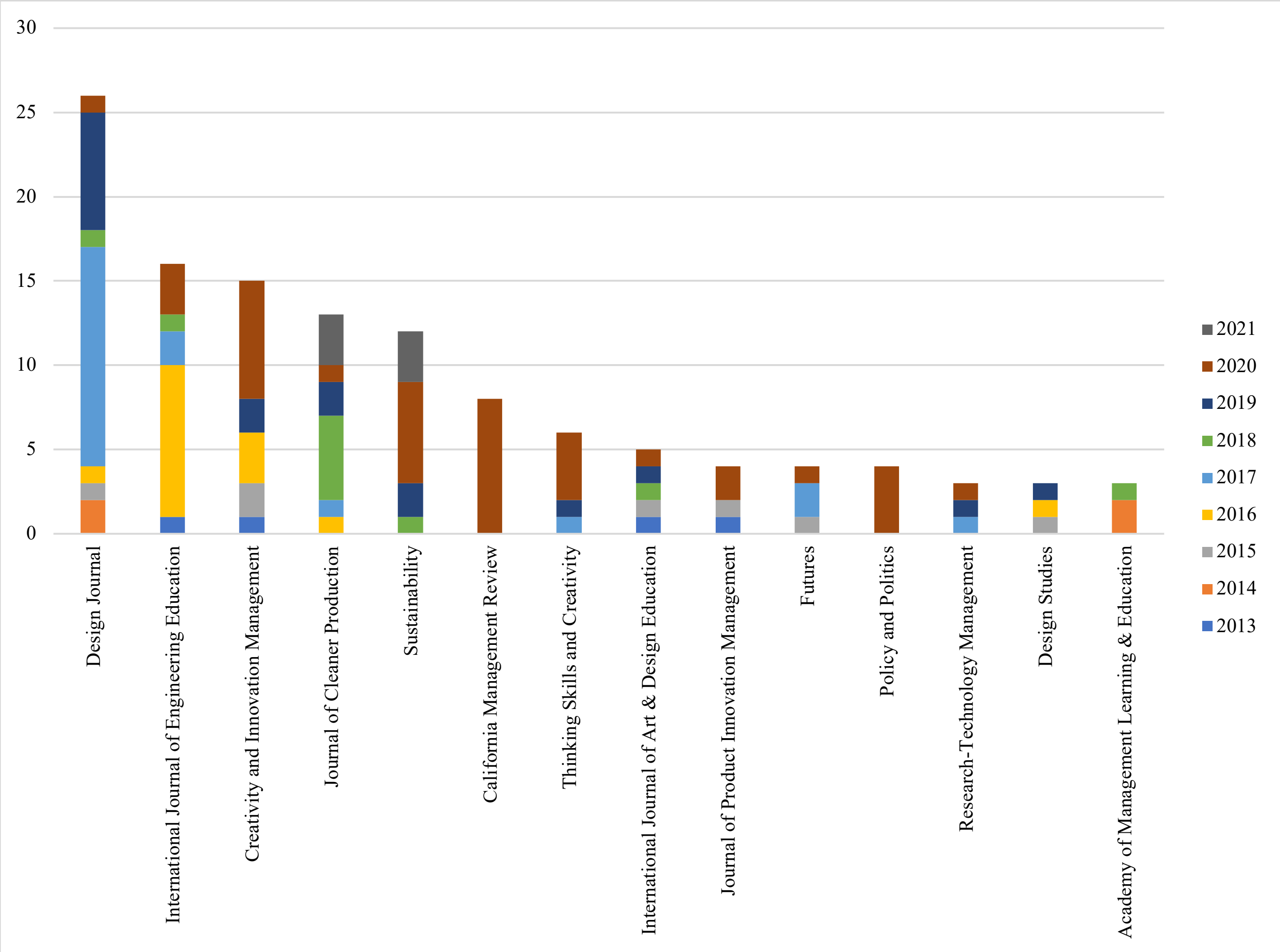

Figure 2 - Most important journals

Source: Own elaboration

3.4 Content Analysis

The content analysis was entailed on 70 articles, which directly related to Design Thinking and innovation. The process included thematic coding to determine the main attributes of Design Thinking, looking in detail at the SMEs and resulted in the development of a framework / set of relevant categories regarding the requirements, success factors and failures in implementing Design Thinking in SMEs.

Two distinct groups emerged: one centered on the failure of Design Thinking interventions, encompassing direct and indirect shortcomings in the articles (e.g., lack of understanding, inflexibility), and the other highlighting factors associated with notable successes (e.g., management support, customer-centric).

Furthermore, the analysis factors were tailored to SME characteristics, taking into account six SME-specific traits:

- *Entrepreneurial Dependence*: SMEs often rely heavily on the entrepreneur or entrepreneurial family for management and leadership (Kammerlander, Burger, Fust, & Fueglistaller, 2015).
- *Operational Focus*: In SMEs, managing directors frequently engage in operational activities, limiting their capacity for strategic management (Gasda & Fueglistaller, 2015).
- *Skilled Workforce*: Many SME employees receive in-house training, and both entrepreneurs and employees are deeply involved in day-to-day tasks, posing challenges to innovation (Liedtka & Ogilvie, 2011).
- *Agility Challenges*: SMEs may struggle to maintain the agility required for rapidly changing technologies and short product lifecycles (Sarooghi, Sunny, Hornsby, & Fernhaber, 2019).

- *Financial Constraints*: SMEs often have more limited financial resources compared to larger corporations, particularly for investment projects (Kammerlander, Burger, Fust, & Fueglistaller, 2015).
- *Lean Structure*: SMEs typically have a lean organizational structure, with low formalization and a flat hierarchy (Durst & Edvardsson, 2012).

Drawing from these SME characteristics, the criteria for Design Thinking in SMEs were applied. Within the context of this study, the identified requirements from the literature were categorized as "Mandatory" (Table 3) and "Nice To Have" (Table 4). "Mandatory" requirements may pose greater challenges for implementation in SMEs compared to larger companies.

Table 3 - Specific Requirements for Design Thinking in SMEs: Mandatory

Mandatory	Explanation	References
Management support for the DT team	In the context of SMEs, the likelihood of introducing Design Thinking within a single department without the involvement and endorsement of the entrepreneur is significantly diminished. The commitment and support of the entrepreneur are imperative prerequisites for the successful execution of such projects.	(Appleyard et al., 2020; Bason & Austin, 2019; Crites & Rye, 2020; Eppler & Kernbach, 2016; Lee & Ma, 2020; Snyder et al., 2018; Vagal et al., 2020)
Time Resources	In SMEs, employee involvement in the innovation process is typically an auxiliary endeavor at best. These businesses often have fewer specialized departments. SMEs must exercise caution when contemplating the initiation of a Design Thinking project, especially when the precise benefits cannot be reliably quantified in advance.	(Agogino et al., 2016; Ahn et al., 2021; Beltagui, 2018) (Bicen & Johnson, 2015; Cagnin, 2018; Carlgren et al., 2014; Coco et al., 2020; Crites & Rye, 2020; de Carvalho et al., 2021; Ghajargar et al., 2017; Kimbell, 2011; Nagaraj et al., 2020; Yu et al., 2015)
Budget for design thinking projects	Here the statement for Budget is the same as in “time resources”	(Baldassarre et al., 2020)

Table 4 - Specific Requirements for Design Thinking in SMEs: Nice To Have

Preferable	Explanation	References
Small projects and small teams	In SMEs, the implementation of innovations differs significantly from large corporations. In these smaller enterprises, even modest projects can yield substantial successes.	(Baldassarre et al., 2020; Manzini & Rizzo, 2011)
DT team strategically well positioned (team selection)	SMEs often face challenges in allocating the required resources and space for pursuing optimization and innovation efforts.	(Beckman & Barry, 2007; Brown, 2008; Fleury et al., 2016; Hölzle & Rhinow, 2019; Kurtmollaiev et al., 2018; Nagaraj et al., 2020; Seidel & Fixson, 2013; Vagal et al., 2020; Yang & Hsu, 2020; Yeoman & Carvalho, 2019)
Strategic alignment with customer-centric or benefit-oriented approaches firmly established	SMEs tend to exercise caution when considering the initiation of a Design Thinking project, as they often require a clear understanding of the anticipated benefits before committing to such endeavors.	(Diepenmaat et al., 2020; Hankammer et al., 2019; Hölzle & Rhinow, 2019; Knight et al., 2020; Vetterli et al., 2016; Yan, 2018)

Success factors have been separated in “Specific to SME” (Table 5) and “General factors” (Table 6), in order to distinguish those factors which are dependent on company type and those which are not.

Failures that are not acknowledged and shared lose their significance in the realm of innovation. Consequently, organizations waste significant time, money, and resources by repeatedly making the same mistakes, all because these failures are not openly discussed. Entrepreneurs and managers show a growing interest in understanding the failures of innovation projects as a means of preventing potential issues and risks.

Table 7 illustrates the failures extracted from the articles, encompassing both direct and indirect contexts. Given the limitations and resource constraints often encountered by SMEs when implementing innovation projects, it is advisable for them to proceed with caution by taking smaller, more manageable steps in their projects.

Table 5 - Success factors unique for SMEs

Unique for SMEs	Explanation	References
Potential benefits of DT project known in advance	Only if it can be seen early on that the initial investment has paid off will others follow.	(Carlgren et al., 2014)
Design thinking steps well defined	SMEs lack the financial resources to take bigger risks. Therefore, the steps for innovation should be taken in smaller but safe steps.	(Bairaktarova et al., 2016; Carmel-Gilfilen & Portillo, 2016; Hookway et al., 2019; Pluchinotta et al., 2019; Shafiee et al., 2021)
External design thinking experts to support the project	Given the substantial involvement of employees in daily operations, it is often impractical for SMEs to allocate the time, resources, and expertise needed for internal design thinking implementation without the assistance of external coaches.	(Ghajargar et al., 2017; Jun et al., 2014; Kozlowski et al., 2018; Kulick, 2017; Na et al., 2017; Shapira et al., 2017)
Design Thinking success is measured differently	Small steps lead to greater success.	(Brassett & O'Reilly, 2015; Chandler & Ward, 2019; Conforto et al., 2016; Knight et al., 2019)
Cross-departmental projects with DT	Due to the flat hierarchical structures in SMEs, communication within teams tends to be more rapid compared to larger organizations.	(Seidel & Fixson, 2013)
DT is also integrated and applied to existing projects	In SMEs, innovation approaches are frequently applied in projects without explicit definition or recognition as formal innovation strategies.	(Liem & Brangier, 2012; Shafiee et al., 2021)
First application to design affinity areas	The advantage for SMEs is that DT can be introduced even with a small budget.	(Agogino et al., 2016; Beckman & Barry, 2007; Chandler & Ward, 2019; Lande, 2016; Lim et al., 2019)
External experts are involved	Outsourcing allows employees to focus on their own day-to-day work.	(Buhl et al., 2019; Carlgren et al., 2016; Eppler & Kernbach, 2016; Fleury et al., 2016; Glen et al., 2014; Kim & Strimel, 2020; Liem & Brangier, 2012; Olsen, 2015; Yu et al., 2015)

Table 6 – General success factors independent of being SMEs

Mandatory	Explanation	References
DT is visually represented and communicated	Visual representation of DT is possible in both SMEs and large enterprises.	(Na et al., 2017)
DT involved persons are professionally trained	The engagement of professional coaches can be beneficial for enterprises of all sizes. However, this factor holds greater significance and tends to be more effective in SMEs.	(Na et al., 2017; Shapira et al., 2017)
Physical space for DT projects is available	This area appeals more to large companies than to SMEs.	(McGann et al., 2018; McGann et al., 2021)
DT is easy to learn and use for company employees	Design Thinking remains practical and straightforward when adhering to its core steps, making it a feasible approach in companies of all sizes.	(Souza et al., 2020)
Internal employees involved in the project. Usually, no external experts necessary.	Large companies often have dedicated innovation departments, which can lead to limited external perspectives and involvement.	(Brown, 2008; Carlgren et al., 2014; Roberts & Palmer, 2012; Snyder et al., 2018)

Table 7 - Failure factors based on the nature of SMEs

Failure factors	Explanation (based on the nature of the SMEs)	Literature
Lack of customer input in customer analysis (customer goals, personas, customer journeys, etc.) and prevalent misconceptions of already knowing customer needs and expectations	Comprehending customer goals and the present customer experience as perceived by the customer is key to actively improve customer experience. Companies should acquire a deep understanding of the customer's objectives, requirements, viewpoints, and interactions in order to enhance their offerings effectively.	(Dhaliwa, Hussain, & Asif, 2019; Liu & Lu, 2020; Rau, Zbiek, & Jonas, 2017; Sohaib, Solanki, Snyder, Ingelsson, & Backstrom, 2018)
No comprehensive or incorrect survey of actual customer needs and expectations	A holistic and correct recording of the customer's needs and expectations require comprehensive ethnographic, qualitative and quantitative data collection and evaluation of internal and external information sources. Personal points of contact should be used for in-depth insights and feedback.	(Hankammer, Brenk, Fabry, Nordemann, & Piller, 2019)
Qualitative survey methods with the customer (surveys, interviews, etc.) are designed to create negative customer experiences	The process of directly collecting customer input should be utilized judiciously to prevent negative customer reactions and survey fatigue, which can diminish their willingness to provide valuable feedback.	(Andreassan, Kristensson, Lervik-Olsen, Parasuraman, McColl-Kennedy, & Edvardsson, 2016; Lim, Kim, Kim, & Kim, 2019; Pande & Bharathi, 2020)
No complete coverage of all touch points and no Evaluation of the importance of individual touchpoints from the customer's point of view	All touchpoints must be captured, and an assessment of relevance made from the customer's perspective.	(Hankammer, Brenk, Fabry, Nordemann, & Piller, 2019)
No linkage of the assessment of relevant touch points with entrepreneurial significance	The touchpoints deemed relevant by customers must also be assessed in terms of their economic significance for the company so that design priorities can be defined later.	(Martin, 2011)
Insufficient analysis (resulting in a lack of understanding) of the value-adding processes	Understanding how the company create value for the customers is key to effectively align the processes and value proposition with customer needs and expectations.	(Appleyard, Enders, & Velazquez, 2020; Holzle & Rhinow, 2019)
No identification of relevant stakeholders and decision makers as well as their holistic customer journeys, goals and pain points	To create optimal experiences for all relevant customer stakeholder groups, it is key to capture the individual goals, pain points, and customer journeys from start to finish.	(Bas & Guillo, 2015; Geldermann, Lerche, & Sepulveda, 2018; Magistretti, Dell`Era, & Doppio, 2020; Pluchinotta, Kazakci, Giordano, & Tsoukias, 2019)
Insufficient analysis of a customer's interactions with other service providers in the ecosystem or other customers	A holistic understanding of the customer experience requires capturing the entire value-creating ecosystem. Companies should conduct a thorough analysis of this ecosystem to comprehend how it generates added value and utility for customers. Moreover, they should understand how this ecosystem shapes customer expectations and perceptions.	(Sorice & Donlan, 2015)
No adequate recording of own value-adding processes or current value proposition to customers	A common understanding of the existing value proposition and internal processes serves as the foundation for subsequent design choices and for aligning processes to deliver valuable experiences to customers.	(Hankammer, Brenk, Fabry, Nordemann, & Piller, 2019; Hirano, Ishizuka, & Sakaguchi, 2013)
No situation analysis of the competencies and resources currently available in the company, related to customer experience and organizational performance	The subsequent execution, monitoring, and control of customer experiences demand dedicated competencies and resources. It's only through analysis that any identified gaps can be addressed.	(Nagaraj, Berente, Lyytinen, & Gaskin, 2020)

4. Findings & Discussion

The findings from our analysis indicate that research on design thinking in the context of innovation is still a relatively young field, with steady development over the 15 years leading up to the study.

Notably, the most significant articles in the realm of design thinking research and innovation often had a strong design-oriented focus, with publications in journals like the Design Journal playing a predominant role. Furthermore, there were contributions in well-established innovation journals such as the International Journal of Engineering Education, Creativity and Innovation Management, Journal of Cleaner Production, Sustainability, and California Management Review. This diversification suggests that design thinking has garnered interest from various research streams.

Following our content analysis, we were able to pinpoint key elements and dimensions of design thinking practices within the SME context. These encompassed a focus on requirements, key success factors, and failures (as detailed in Tables 3 to 7). These objective elements for evaluating the effectiveness and shortcomings of design thinking and innovation methodologies can be employed to enhance innovation capabilities.

Our results underscore that, although there are some studies centered on the implementation of design thinking approaches in SMEs, there is still ample terrain to explore. The concept of design thinking is not widespread in SMEs (Gasda & Fueglistaller, 2015), partly because they are absorbed in day-to-day operations, making them slow to adopt new approaches (Magistretti, Dell`Era, & Doppio, 2020). This situation may pose a risk to their competitive advantages in the medium to long term.

Furthermore, as SMEs are not frequent users of Design Thinking, the academia has manifested a relevant interest in the topic (Kammerlander, Burger, Fust, & Fueglistaller, 2015), leading to insufficient academic knowledge about the phenomenon.

Nevertheless, SMEs exhibit certain characteristics that make them receptive to design thinking principles. Their openness to integrating design thinking practices is often greater than that of larger corporations (Shapira, Ketchie, & Nehe, 2017). Additionally, due to their flat organizational hierarchies, SMEs are capable of swiftly adapting to changes—a trait not as readily observed in large companies.

Consequently, these factors provide opportunities to further enhance and support the strategic sustainability behavior of SMEs and align them with the innovation objectives that Design Thinking pursues, in line with what is defended by Magistretti, Dell`Era, & Doppio (2020).

5. Conclusions

The primary objective of this study was to identify the scholarly output related to Design Thinking innovation strategy in SMEs context, and identifying requirements, success factors and barriers (associated to failures in implementation) through a systematic literature review. In doing so, we have made several contributions to the existing literature.

First, we have identified that innovation approaches, at their core, incorporate distinct Design Thinking parameters. These parameters revolve around managing uncertainty, fostering adaptability, flexibility, understanding, speed, and integration. Recognizing these interconnections between Design Thinking and innovation strategies can empower SMEs to enhance their response to uncertainty and mitigate risks.

Second, by developing the categorized Design Thinking framework, we provided scholars and practitioners a conceptual tool to put together innovative solutions and compare them against varying requirements and success factors within the context of SMEs. This paves the way for hybrid methodologies that offer multiple avenues for addressing uncertainty and other challenges.

It is worth considering that this study has limitations. While we have compiled a list of requirements, key success factors, and failures tailored to SMEs based on the literature, these elements have not been empirically tested. Future research could benefit from empirical validation.

Also, as a systematic literature review, the findings cannot be universally applied or provide managerial or policy recommendations.

Finally, as SMEs encompass a wide spectrum of firms, ranging from startups to well-established entities, their specific requirements, success factors, and failures can vary significantly. Future studies should consider examining these elements while controlling for variables such as size, age, industry, and other characteristics that may contribute to differences among SMEs.

Moving forward, researchers could explore the design principles found in the innovation management literature in relation to SMEs, developing a similar list tailored to these firms. Additionally, investigating the implementation of Design Thinking projects in the context of SMEs through empirical methods, such as expert interviews or multiple case studies, could yield a deeper understanding of the phenomenon.

Ultimately, researchers and scientists can further test, refine, and enhance the Design Thinking solution approaches introduced in this study across various business scenarios, including small and medium-sized enterprises and startups. They can also experiment with applying these Design Thinking criteria and principles at different stages of the Design Thinking process, employing diverse practices and techniques, and studying their influence on innovation performance.

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Antecedents and consequences of Apple brand love

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Abstract

For many years, satisfaction was the main goal of marketing strategy. However, subsequent studies revealed that merely satisfying consumers was not sufficient for a company to succeed in a highly competitive market. Therefore, the concept of brand love emerged. Consequently, the study of the factors that lead consumers to feel love for a brand has become increasingly important, as nowadays consumers develop emotional and passionate relationships with brands. The purpose of our study is to identify the main antecedents and consequences of Apple brand love. Based on a sample of 215 respondents, we employed the structural equation model. The antecedents of Apple brand love considered were hedonic product, brand experience, and brand satisfaction. As consequences of Apple brand love, brand loyalty and brand word-of-mouth were analyzed. The results showed that purchasing a hedonic product, brand experience, and brand satisfaction are essential for consumers to nurture Apple brand love. In turn, the hedonic product is also an antecedent of brand experience and brand satisfaction, while brand experience also proved to be crucial in achieving Apple brand satisfaction. Moreover, Apple brand love and satisfaction with this brand generate loyalty and positive word-of-mouth. Finally, loyal consumers speak positively about the Apple brand.

Keywords: Brand Love, Brand antecedents and consequences, Apple.

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1. Introduction

In the context of brand love, researchers have applied similar concepts from Rubin's (1973) work, which focused on interpersonal relationships, to explore emotional attachments between consumers and brands. Love, considered as a highly complex relationship, encompasses various feelings toward another. When discussing consumer-brand relationships, Fournier (1998) suggested that love exists as a higher-order bond that helps to create strong and positive relationships that can lead to loyalty. By extrapolating interpersonal theory to assess interaction with 'objects of love', Shimp and Madden (1988) initiated the investigation of brand love. Since then, research on consumers' love for brands has flourished (Cacho-Elizondo et al., 2020). Brand love, or the amount of passionate, emotional attachment a consumer has for a particular brand, includes desire and affection for the brand, positive brand evaluation, and emotions towards the brand, as well as declarations of love for the brand (Ahuvia, 2005a, 2005b; Carroll & Ahuvia, 2006).

Satisfaction, the core of the marketing concept, has been seen as the key objective of marketing strategy for many years. Oliver (1999) defined satisfaction by emphasizing the cognitive and emotional aspects of customer experience evaluation with a product or service. Wirtz and Bateson (1999), in the context of services, also proposed that satisfaction consists of both cognitive and affective aspects in a customer's experience. Satisfaction incorporates cognitive judgments and affective reactions during consumption (Oliver, 1993). Satisfaction has assumed a crucial and dominant position in marketing theory and practice because, as the primary outcome of marketing activities, it transforms initial consumption and purchase into post-purchase phenomena such as repurchase and brand loyalty (Churchill & Surprenant, 1982). However, there have been studies suggesting that consumer satisfaction may not be enough to maintain success in competitive markets (Carroll & Ahuvia, 2006), hence brand love, being a more recent marketing construct, helps explain variations in post-consumption behaviors of satisfied consumers.

Brand love is different from satisfaction for several reasons (Carroll & Ahuvia, 2006). Firstly, satisfaction is generally conceptualized as a cognitive judgment, whereas brand love has a much stronger affective focus. Secondly, satisfaction is typically seen as an outcome of a specific transaction, whereas brand love oftentimes is the result of a consumer's long-term relationship with the brand. Thirdly, satisfaction is frequently related to the expectancy disconfirmation paradigm, whereas brand love requires neither expectancy nor disconfirmation (e.g., the consumer experiences an emotional response to the brand in the absence of cognition; the consumer knows what to expect from the brand, so little, if any, disconfirmation occurs). Finally, brand love includes a willingness to declare love (e.g., 'I love this brand!') and involves integration of the brand into the consumer's identity, neither of which is requisite in satisfaction.

The purpose of our study is to analyze the antecedents and consequences of Apple brand love. To do so, we propose a model in which we consider, as antecedents of brand love, hedonic product, brand experience, and brand satisfaction, and, as consequences of brand love, brand loyalty and brand word-of-mouth. Finally, brand loyalty was understood to be a precursor of word-of-mouth about the Apple brand.

2. Literature Review and Research Hypotheses

In this section, the theoretical framework supporting the construction of our research model is presented, centered around Apple brand love. Consumers find satisfaction with a brand when they have positive experiences and perceive the brand as hedonic. A hedonic brand also contributes to consumers considering their experience with the brand as memorable. On the other hand, consumers seem to develop emotional and passionate relationships with a brand, cultivating brand love, when the brand provides them with a pleasant experience, is perceived as hedonic, and when they are satisfied with the brand. Satisfied and brand-loving consumers, in turn, develop brand loyalty and engage in positive word-of-mouth. Lastly, loyal customers speak positively about the brand to others.

2.1. Apple Brand Love: Antecedents and Consequences

Hedonic product, brand experience, and brand satisfaction were chosen as antecedent variables of Apple brand love. On the other hand, brand loyalty and positive word-of-mouth (WOM) regarding the brand were selected as consequences of Apple brand love, as they are fundamental variables in the marketing literature. Consequently, if a consumer purchases a hedonic product from the Apple brand, has a positive experience with that product, and becomes satisfied, he or she will likely develop Apple brand love. In turn, satisfaction and brand love will translate into the consumer's loyalty to the Apple brand and positive brand word-of-mouth. Finally, loyalty to the Apple brand will lead to word-of-mouth about the brand.

The concept of brand love emerged in marketing literature thanks to the pioneering work done by Shimp and Madden (1998), which was based on theories of psychology. They adapted Sternberg's (1986) triangular theory of love to the context of marketing and branding, arguing that brand love encompasses the dimensions of passion, intimacy, and commitment. However, it was

Ahuvia who, in 2005, initiated empirical research into the concept, using an interpretive paradigm, which revealed that consumers can develop intense emotional relationships with a variety of consumer objects, including brands (Ahuvia, 2005a, 2005b). Ahuvia's work (2005b) showed significant similarities between love in interpersonal relationships and in the consumer context. In 2006, Carroll and Ahuvia defined brand love, in a unidimensional way, as the degree of passionate emotional attachment a satisfied customer has for a brand.

A more complex interpretation of the phenomenon was suggested by Albert et al. (2009) when brand love was considered a multidimensional concept. These authors showed that brand love consists of two macro-dimensions, affection, and passion, which, in turn, include several dimensions. Another multidimensional view of the concept was proposed by Batra et al. (2012), who used the notion of 'prototype' to define brand love because, according to these authors, it better describes complex phenomena, such as love, which are difficult to capture using rigorous and precise definitions.

A different interpretation of brand love was also provided by Rossiter (2012), who emphasized the need to define brand love in a way that allowed researchers to distinguish it from love for a person. This author defined brand love by the simultaneous presence of a consumer's deep affection for the branded product and the anxiety felt in anticipation of separation if the product is not available. He measured brand love in contrast to other brand-related emotions, namely liking, neutral feeling, dislike, and hate.

The concept of brand experience has been attracting the attention of marketing managers as consumers seek brands that provide them with unique and memorable experiences (Zarantonello & Schmitt, 2010; Moreira et al., 2017). According to Schmitt (1999), traditional marketing appeals to functional connections with the customer. However, customers now look for more exciting activities and experiential marketing, by creating distinctive experiences, can provide significant economic value for companies (Pine & Gilmore, 1999). Brand experience was defined by Brakus et al. (2009, p. 53) as "subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioral responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments". Whenever consumers engage in these activities, they are exposed not only to the attributes of the product itself but also to other specific brand-related stimuli, such as brand-identifying colors, actions, design elements, slogans, mascots, and brand characters (Brakus et al., 2009). These brand-related stimuli constitute the major source of internal subjective consumer responses, which are at the very essence of brand experiences (Brakus et al., 2009).

Brand experiences can vary in strength, intensity, and valence. Furthermore, some experiences happen spontaneously and are short-lived, while others occur intentionally and are long-lasting (Brakus et al., 2009). Brand experience is formed from a sensory dimension (related to visual, auditory, tactile, gustatory, and olfactory stimuli provided by a brand); an affective dimension (including the feelings created by brands and their emotional connections with consumers); a behavioural dimension (referring to bodily experiences, lifestyles, and interactions with the brand); and finally, an intellectual dimension (including the brand's ability to engage consumers in convergent and divergent thinking). Depending on the number of dimensions and the strength evoked by a stimulus, brand experiences can be more or less intense. These brand-related stimuli are part of the brand's identity and design (name and logo), packaging and marketing communications (advertising and brochures), or the environments where the brand is marketed (stores) and are the main source of internal subjective consumer responses or brand experiences (Brakus et al., 2009).

For Dhar and Wertenbroch (2000), consumer choices are driven by considerations related to utilitarian and hedonistic aspects. For instance, when purchasing a car, consumers might be concerned about utilitarian features (e.g., gas mileage) as well as hedonic aspects (e.g., sporty design). Given the relevance of this division regarding consumer behavior, it is the marketer's task to understand the weight of each variable at the moment of purchase decision. Hedonic products are products associated with the concepts of fun and pleasure, as their consumption is expected to evoke strong emotional responses in consumers (Carroll & Ahuvia, 2006).

Hedonic goods provide more experiential consumption, fun, pleasure, and excitement; in other words, they are related to a pleasant consumption experience (e.g., designer clothes, sports cars, luxury watches), whereas products with utilitarian features are more related to functional aspects (e.g., microwaves, personal computers) (Hirschman & Holbrook, 1982; Strahilevitz & Myers, 1998). While for utilitarian products, the salient benefits are more cognitively oriented than emotional, for hedonic products, emotional responses will be more important in the formation of brand evaluation than cognitions (Kempf, 1999). Consequently, when the emotional elements of pleasure are high and positive for a product category, consumers should experience more favorable affect toward the brand consumed (Chaudhuri & Holbrook, 2001).

Customer satisfaction has occupied a prominent place in the fields of marketing and services. According to the expectancy-disconfirmation paradigm, satisfaction is the result of the discrepancy between expectations and perceived performance (Oliver, 1980). As highlighted by Tse and Wilton (1988, p. 204), some researchers define satisfaction as "the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product as perceived after its consumption".

Zeithaml and Bitner (2003) emphasized that satisfaction is an evaluation made by the customer, regarding a product or service, indicating whether it meets the customer's needs and expectations, and Kotler and Keller (2012) underlined that satisfaction is the feeling of pleasure that results from the comparison between the perceived performance (or outcome) of a product and the buyer's expectations. Customer satisfaction depends on the product's perceived performance relative to a buyer's expectations

(Kotler & Armstrong, 2012). However, two general conceptualizations of satisfaction exist in the literature: transaction-specific satisfaction and overall or cumulative satisfaction (Johnson et al., 1995; Olsen & Johnson, 2003). Transaction-specific satisfaction dominated the marketing and consumer behavior literature up through the early 1990s. This approach defines satisfaction as a customer's evaluation of his or her experience with and reactions to a particular product transaction, episode, or service encounter.

Satisfaction research has grown to include an emphasis on cumulative satisfaction, defined as a customer's overall evaluation of a product or service provider to date, that is, describes customers' total consumption experience with a product or service. According to Olsen & Johnson (2003, p. 185) "one advantage of cumulative evaluations is that they should better predict customers' intentions and behavior". Consequently, the emphasis on cumulative satisfaction or overall satisfaction reflects a growing interest in understanding customer evaluations and relationships over time.

In the literature, many works establish a positive relationship between brand love and some psychological variables linked to brand performance, which include, among other variables, brand loyalty (Carroll & Ahuvia, 2006; Batra et al., 2012), purchase intention (Sarkar & Sreejesh, 2014), and word-of-mouth (Carroll & Ahuvia, 2006; Batra et al., 2012; Albert & Meruka, 2013). In this study, we considered brand loyalty and positive word-of-mouth (WOM) about the brand to be the most relevant consequences of brand love.

Brand loyalty is more than repurchasing; it is a long-term psychological relationship (Oliver, 1999). Loyalty was described as a "deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 1999, p. 34). The concept of loyalty is strongly related to relational marketing, as it requires developing a customer-brand relationship for the individual to become loyal (Sheth, 1971). Loyalty has been extensively investigated, not only because it is a fundamental issue in companies' marketing strategies, but also because customers have become more volatile and have reasons to be less loyal. Before any strategy is defined, the organization must understand its customers, their preferences, and how to serve them better, in order to establish a long-term relationship (Dick & Basu, 1994).

Researchers began to consider two dimensions in brand loyalty: behavioral and attitudinal (Dick & Basu, 1994), due to the limitations of the behavioral approach. Dick and Basu (1994) stressed upon the need to extend the concept of brand loyalty to include attitudinal influences. As highlighted by Chaudhuri & Holbrook (2001), the definition of loyalty by Oliver (1999) emphasizes the two different aspects of brand loyalty, behavioral and attitudinal, that have been described in previous work on the concept, such as those by Day (1969), Jacoby and Kyner (1973), Jacoby and Chestnut (1978), and Aaker (1991). Behavioral loyalty consists of repeated purchases of the brand, whereas attitudinal brand loyalty includes a degree of dispositional commitment in terms of some unique value associated with the brand.

Word-of-mouth was defined as "informal, person-to-person communication between a perceived non-commercial communicator and a receiver regarding a brand, a product, an organization or a service" (Harrison-Walker, 2001, p. 63). Word-of-mouth, which can be negative or positive, refers to personal and impersonal communication about goods and services (Godes & Mazlin, 2004). East et al. (2008) underlined that positive word-of-mouth encourages brand choice, and in contrast, negative word-of-mouth discourages brand choice. Positive word-of-mouth concerns the degree to which the consumer praises the brand to others (Westbrook, 1987; Carroll & Ahuvia, 2006). It is worth noting that positive word-of-mouth is "the primary factor behind 20 to 50 percent of all purchasing decisions. Its influence is greatest when consumers are buying a product for the first time or when products are relatively expensive, factors that tend to make people conduct more research, seek more opinions, and deliberate longer than they otherwise would" (Bughin et al., 2010, p. 2).

Prior research shows the impact of the hedonic and utilitarian values on satisfaction (Carpenter, 2008; Irani & Hanzaee, 2011). Several studies, such as those by Hsu and Chen (2018), Lee and Kim (2018), El-Adly (2019), Vijay et al. (2019), Li et al. (2021), and Pang (2021) have demonstrated that hedonic product has a positive impact on brand satisfaction. Consequently, we developed the following research hypothesis:

H1: Hedonic product positively influences brand satisfaction.

For Carroll & Ahuvia (2006), as hedonic products tend to generate stronger emotional responses, the consumers will find them more lovable. More hedonic products have nontangible, symbolic benefits and are likely to encourage a greater potential for positive brand affect. In recent studies, hedonic product has a positive impact on brand love (Karjaluoto et al., 2016; Hsu & Chen, 2018; Liu et al., 2018; Junaid et al., 2019; Hossain et al., 2023) Thus, we propose the following research hypothesis:

H2: Hedonic product positively influences brand love.

The brand experience is influenced by the perception of utilitarian and hedonic products, although hedonic products had a greater influence on brand experience (Yu & Yuan, 2019). According to Klein et al. (2016), hedonic shopping value have an impact on brand experience. High levels of atmospherics create fascination with the brand, which might translate into brand experiences (Hollenbeck et al., 2008). Given the beforementioned, we developed the following research hypothesis:

H3: Hedonic product positively influences brand experience.

For Brakus et al. (2009), brand experiences provide value to consumers and, consequently, confer a higher level of satisfaction with the brand. As in the study by Brakus (2009), Ishida and Taylor (2012), Beckman et al (2013), Barnes et al. (2014), and Moreira et al (2017) tested the influence of sensory, affective, behavioral, and intellectual dimensions of experiences on brand satisfaction. Good experiences when consumers interact with a particular brand are more likely to make them feel satisfied (Nysveen et al., 2013). Experience results from a stimulus. Once it can cause enjoyment, if a brand can offer various experiences, it can be expected that the consumers will want to repeat the experience and, thus, the brand can enhance customer satisfaction (Kim et al., 2015).

The literature provides an understanding of customer satisfaction as an outcome of brand experience for services (Barnes et al., 2014), retail brand (Khan & Rahman, 2015), and online brands (Lee & Jeong, 2014). Recent works by Hussein (2018), Kharat et al. (2018), Iglesias et al. (2019), Shanti and Rofiq (2019), Asghar et al. (2020), Lacap and Tungcab (2020), Singh and Söderlund (2020), and Slaton et al. (2020) have proven that brand experience has a positive impact on brand satisfaction. Therefore, we formulated the following hypothesis:

H4: Brand experience positively influences brand satisfaction.

Zhang (2019) considers three dimensions of brand experience to influence brand love: sensory, emotional, and social. Sensory experience enables individuals to have a unique "emotional capability" of their favorite products, that is, they can obtain a sense of pleasure and satisfaction, which means that consumer atmosphere will promote individuals to actively experience the environment or products with strong sensory colors and deepen their impression and favorable impression of the brand through unique feelings (Zhang et al., 2007; Yang et al., 2010, Zhang, 2019).

Hepola et al. (2017) stated that sensory element is a central component of brand experience and argues that the sensory dimension of brand experience can capture customers' attention toward the brand. In emotional experience, pleasant consumption experience will promote consumers to have positive, active, and effective cognition, use and communication of products or services. That is, if between the consumer and the brand an engagement results, characterized by a strong emotional attachment, a love relationship can be built between the two (Thomson et al., 2005; Park & Macinnis, 2006). In social experience, being the highest stage of experience, through dreaming and unexpected consumption experience, consumers can enjoy the unique and surreal environment to the fullest, improve their cognition and evaluation of the brand, and promote the generation of their beloved emotion.

For Roy et al. (2013), in the literature, the link between brand experience and brand love only explored the relationship between affective experience and brand love. However, as Garg et al. (2015, 2016) pointed out, when researching the relationship between brand experience and brand love, it is necessary to consider the four dimensions of brand experience: sensory, affective, behavioral, and intellectual.

Many studies have recognised that positive brand experience is a necessary element in the development of brand love (Sarkar et al., 2012). Recently, Bıçakcıoğlu et al. (2018), Ferreira et al. (2019), Madeline and Sihombing (2019), Prentice et al. (2019), Shanti and Rofiq (2019), Trivedi (2019), Anwar and Jalees (2020), Khamwon and Masri (2020), Amaro et al. (2021), Cacho-Elizondo et al. (2021), Fernandes and Inverneiro (2021), Rodrigues and Brandão (2021), and Singh et al. (2021) proved that brand experience has a positive impact on brand love. Thus, we formulated the following hypothesis:

H5: Brand experience positively influences brand love.

Brand love, being a construct that has gained relevance in the marketing literature (Vernuccio et al., 2015, Kaufmann et al., 2016; Hegner et al., 2017) is formed due to higher levels of satisfaction obtained through brands (Carroll & Ahuvia, 2006). Zhang (2019, p. 899) emphasized that Carroll and Ahuvia (2006) "proposed that brand love was the emotional dependence on the brand of highly satisfied consumers, which includes positive emotional response, positive brand evaluation, brand attachment and declaration of brand love". Consistent with the thinking of Fournier and Mick (1999), brand love is "a response experienced by some, but not all, satisfied consumers" (Caroll & Ahuvia, 2006, p. 81). As Aro et al. (2018, p. 73) underlined, for Roy et al. (2013), as in Carroll and Ahuvia (2006), satisfaction is considered a requirement for brand love, although not all satisfied consumers feel brand love.

Fournier and Mick (1999, p. 11) suggest that "satisfaction-as-love probably constitutes the most intense and profound satisfaction of all". Therefore, for Fournier and Mick (1999), the most intense satisfaction was experienced when the satisfaction of a consumer for a product or a brand turned into love (Unal & Aydin, 2013). In the same line of thought, Unal and Aydin (2013) defend that satisfaction levels forms a basis for the creation of brand love. It establishes and strengthens the bond between the brand and the customer. Therefore, consumers who love a brand are highly satisfied with it and often develop a sustainable relationship with the brand.

Recent studies such as those by Hsu and Chen (2018), Anwar and Jalees (2020), Bigné et al. (2020), Diniso and Duh (2020), Nawaz et al. (2020), Slaton et al. (2020), and Joshi and Garg (2021) have proven that brand satisfaction has a positive impact on brand love. In this sense, we formulated the following research hypothesis:

H6: Brand satisfaction positively influences brand love.

If consumers are satisfied with their experiences, they are likely to be willing to purchase a product and recommend it to others (Menidjel et al., 2020). Brand loyalty may be defined as the degree to which the consumer is committed to repurchase the brand (Oliver, 1999, Carroll & Ahuvia, 2006). Loyalty leads to repeated purchase of the brand, even if situational influences and marketing efforts cause changes in behaviour (Oliver, 1997). Loyalty may be defined as "the degree to which a customer exhibits repeat purchasing behaviour from a service provider, possesses a positive attitudinal disposition toward the provider, and considers using only this provider when a need for this service arises" (Gremler & Brown, 1996, p. 173). Past research demonstrates a link between satisfaction and loyalty (Oliver, 1980; Fornell, 1992).

Word-of-mouth, on the other hand, includes any information about a target object (e.g., company, brand) transferred from one individual to another either in person or via some communication medium (Brown et al., 2005). Word-of-mouth (WOM) communications "consist of informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers" (Westbrook, 1987, p. 261). Consumers often recommend their favourite brands to friends and family (Carroll & Ahuvia, 2006; Ismail & Spinelli, 2012). Similarly, those who are satisfied with their products, services or brands often engage in positive WOM (Mittal et al., 1999; Sweeney & Swait, 2008).

Carroll & Ahuvia (2006) showed that satisfied customers tend to be more loyal to a brand and to undertake more positive word-of-mouth about the brand. Recent studies have highlighted the impact of brand satisfaction on both brand loyalty and brand word-of-mouth (Popp & Woratschek, 2017; Santini et al., 2018; Shimul & Phau, 2018; Leri & Theodoridis, 2019; Singh & Söderlund, 2020; Khan et al., 2021). Thus, we formulated the following hypotheses:

H7: Brand satisfaction positively influences brand loyalty.

H8: Brand satisfaction positively influences positive word-of-mouth.

There are three distinctive approaches to measure loyalty: behavioural measurements; attitudinal measurement; and composite measurements (Bowen & Chen, 2001, Yoo & Bai, 2013). The behavioural measurements consider consistent, repetitious purchase behaviour as an indicator of loyalty. Attitudinal measurements use attitudinal data to reflect the emotional and psychological attachment inherent in loyalty. The third approach, composite measurements of loyalty, combine the first two dimensions (Bowen & Chen, 2001). According to Chaudhuri & Holbrook (2001), attitudinal and behavioural loyalty can be developed through brand affect, which refers to positive emotional responses to a brand. Furthermore, Razzaq et al. (2019) show that positive emotions increase consumers' loyalty intentions. These perceptions are likely to strengthen the positive impact of brand love on brand loyalty.

Westbrook (1987) and Carroll and Ahuvia (2006), as we have seen, defined positive word-of-mouth as the degree to which consumers praise the brand to others. Arndt (1968, p. 190) described this communication as simply "oral, person-to-person communication between a perceived non-commercial communicator and a receiver regarding a brand, a product, or a service". Gremler and Brown (1999, p. 273) consider WOM communication to be "communication about a service provider offered by someone who is perceived not to obtain monetary gain from so doing".

Consumers prefer to rely on informal and personal communication sources (e.g., other consumers) in making purchase decisions instead of on formal and organizational sources such as advertising campaigns (Bansal & Voyer, 2000). Consumers appreciate WOM because it is seen as more reliable and trustworthy than other information sources (Day, 1971). Albert and Merunka (2013) demonstrated the influence of brand love on word-of-mouth. That is, if consumers feel they love their brands that in turn may translate into a desire of the recommend it to friends and relatives (Ismail & Spinelli, 2012).

For Carroll and Ahuvia (2006), satisfied consumers who also love the brand are expected to be more committed to repurchase and more eager to spread "the good word" to others. Batra et al. (2012) also confirmed that loyalty and positive word-of-mouth is an important consequence of brand love. Several studies have proven that brand love exerts a positive impact on both brand loyalty and positive brand WOM (Bıçakcıoğlu et al., 2018; Hsu & Chen, 2018; Coelho et al., 2019; Rodrigues & Rodrigues, 2019; Anwar & Jalees, 2020; Cho & Hwang, 2020; Martín et al., 2020; Amaro et al., 2021; Madadi et al., 2021; Trivedi & Sama, 2021). Thus, the following hypotheses were proposed:

H9: Brand love positively influences brand loyalty.

H10: Brand love positively influences positive word-of-mouth.

Loyalty is often associated with a positive shopping experience that individuals like to share with their friends, so loyalty can be directly related to word-of-mouth (Watson et al., 2015). As noted by Dick and Basu (1994), loyal customers are more likely to provide positive word-of-mouth. Reynolds and Arnold (2000) defended the influence of loyalty on word-of-mouth, based on previous studies, in which loyalty leads to referrals, endorsement, and positive word-of-mouth. Loyal customers are more likely to intensively use WOM towards their favourite brands (Srinivasan et al., 2002). Loyal customers usually promote the firm by emphasizing the main attributes of its products (Casaló et al., 2008).

Recent studies have confirmed the influence of loyalty on word-of-mouth (Bıçakcıoğlu et al., 2018; Mukerjee, 2018; Coelho et al., 2019; Larregui-Candelaria et al., 2019; Ali et al., 2020). In view of the above, we developed the following research hypothesis:

H11: Brand loyalty positively influences positive word-of-mouth.

3. Research Methodology

The conceptual model proposed in the present study is depicted in Figure 1. This research model investigates brand satisfaction and brand love as mediating variables between the variables hedonic product and brand experience and between the variables brand loyalty and brand WOM. We also propose the impact of hedonic product on brand experience and the effect of brand satisfaction on brand love. Finally, brand loyalty has an impact on brand WOM. Consequently, it is a pioneering model in the Apple brand field, since WOM, being important, is equally crucial in the divulgation of this brand.

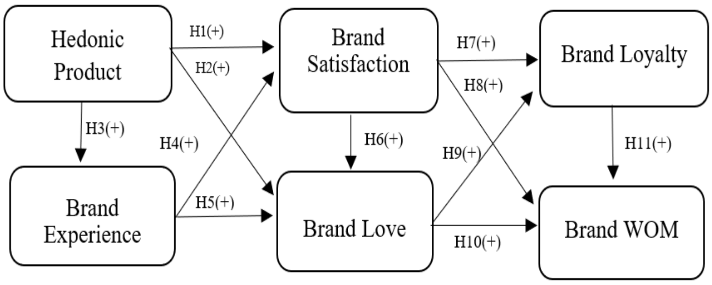

Figure 1 - Proposed Conceptual Model

Source: Elaborated by the authors

3.1. Sample selection and data collection

This research study used a structured and self-administered questionnaire that addressed all the information needed. Thus, to obtain all the data needed, a sample of convenient elements was obtained by using a non-probabilistic convenience sample. Data were collected mainly through email and the social media Facebook. A total of 215 valid responses were obtained. The demographic characteristics indicate that a diverse group of respondents was recruited. Regarding the gender of the respondents, 125 responses were obtained from females (58.1%) and 90 from males (41.9%). Regarding the age of the respondents, 58.2% of the sample is aged between 18 and 30 years. Regarding academic qualifications, 52.1% of the respondents had a university degree and 24.2% had secondary education.

3.2 Measurement scales

The measurement scales of the constructs were based on the literature and adapted to the academic literature. All variables, presented in Table 2, were measured on a seven-point Likert scale, ranging from 1- strongly disagree to 7- strongly agree. The hedonic product, brand love, brand loyalty and brand word-of-mouth measures were adapted from Carroll and Ahuvia (2006). The scale to measure brand experience was adapted from Brakus et al. (2009). The scale to measure brand satisfaction was adapted from Russell-Bennett et al. (2007).

4. Results

4.1 Measurement Model

An initial screening of each scale was conducted using item-total correlations, and exploratory factor analysis (EFA) using SPSS 26.0. Following Anderson and Gerbing's (1988) two-step approach, a measurement model was estimated before testing the hypotheses, using a structural model. The analysis of data was realized through confirmatory factor analysis (CFA) and structural equation modeling (SEM) using the statistical software AMOS (Analysis of Moment Structures) version 26.0. Maximum likelihood estimation procedures were used since these afford more security in samples that might not present multivariate normality. First, we examined the most relevant fit indices of the measurement models recommended by Chin and Todd (1995) and Hu and Bentler (1999).

The measurement model fits the data well. To test a model's fit, the chi-square (X^2) test statistic concerning degrees of freedom (df) can be used. If the X^2/df value is less than 3, the model is considered a good fit. The chi-square (X2) was 553.244 with 260 degrees of freedom at $p<0.001$ (X^2/df=2.13). Because the chi-square is sensitive to sample size, we also assessed additional fit indices: (1) normed fit index (NFI), (2) incremental fit index (IFI), (3) Tucker-Lewis's coefficient (TLI) and (4) comparative fit index (CFI). All these fit indices are higher than 0.9 (NFI=0.91, IFI=0.95, TLI=0.95 and CFI=0.95). Because fit indices can be improved by allowing more terms to be freely estimated, we also assessed the RMSEA, which is 0.073.

CFA enables the performance of tests regarding the convergent validity, discriminant validity and reliability of the study constructs. A commonly used method for estimating convergent validity examines the factor loadings of the measured variables (Anderson & Gerbing, 1988). Following the recommendations by Hair et al. (2006), factor loadings greater than 0.5 are considered very significant.

Also, we used the AVE to contrast convergent validity. Fornell and Larcker (1981) suggested adequately convergent valid measures should contain less than 50% error variance (AVE should be 0.5 or above). Convergent validity was achieved in this study because all the factor loadings exceeded 0.5 and all AVEs were greater than 0.5. Next, CFA was used to assess discriminant validity. If the AVE is larger than the squared correlation between any two constructs, the discriminant validity of the constructs is supported (Fornell & Larcker, 1981).

Discriminant validity was also assessed for each pair of constructs by constraining the estimated correlation between them to 1.0, and a difference test was performed on the values obtained from the constrained and unconstrained models (Anderson & Gerbing, 1988). Discriminant validity of the scales was also supported, as none of the confidence intervals of the phi estimates included 1.0 (Anderson & Gerbing, 1988). Finally, Gaski (1984) suggests the existence of discriminant validity if the correlation between one composite scale and another is not as high as the coefficient alpha of each scale. These tests demonstrated that discriminant validity is present in this study.

Table 1 – Factor Correlation and Measurement Information Matrix

Construct	CR	AVE	X_1	X_2	X_3	X_4	X_5	X_6
Hedonic Product (X_1)	.92	.74	*.92*					
Brand Experience (X_2)	.91	.66	.79	*.91*				
Brand Satisfaction (X_3)	.97	.88	.65	.60	*.97*			
Brand Love (X_4)	.95	.80	.80	.81	.79	*.95*		
Brand Loyalty (X_5)	.92	.75	.67	.67	.76	.84	*.93*	
Brand WOM (X_6)	.93	.81	.75	.68	.89	.83	.80	*.92*

Note: The Cronbach's alpha coefficients are found on the diagonal (italic).
Abbreviations: AVE (average variance extracted), CR (composite reliability).

To assess reliability, the composite reliability (CR) for each construct was generated from the CFA. The CR of each scale must exceed the 0.7 thresholds (Bagozzi, 1981). As Table 1 shows, the composite reliability coefficients of all the constructs are excellent, being larger than 0.9. Cronbach's alpha indicator was also used to assess the initial reliability of the scales, considering a minimum value of 0.7 (Cronbach, 1970; Nunnaly, 1978). As shown in Table 1, coefficient alpha values are all over 0.9, exhibiting high reliability. Table 1 also shows the AVE for each construct, and a correlation matrix of constructs is also shown. In Table 2, we can also see the standardized loadings and t-value of all scale items.

Table 2 - Measurement scales, results of standardized estimated parameters and t-values of the measurement model

Measures	Standardized Loadings	t-value
Hedonic Product		
Apple products are enjoyable.	0.884	16.223
Apple products provide satisfaction.	0.864	15.634
Apple products are fun.	0.826	14.571
Apple products are a sensory experience.	0.870	15.812
Brand Experience		
This brand stimulates me both visually and with my other senses.	0.749	12.558
This brand induces feelings and emotions.	0.852	15.229
This brand is an emotional brand.	0.785	13.453
I engage in a lot of thoughts when I encounter this brand.	0.877	15.963
I engage in thoughts when I come across this brand.	0.797	13.759
Brand Satisfaction		
I am satisfied with my decision to buy this brand.	0.961	19.099
My choice in buying this brand was the best.	0.974	19.164
I feel good that I consider this brand to be my favourite brand.	0.876	16.240
I think I did the right thing when I decided to buy products from this brand.	0.944	18.487
Brand Love		
This brand is completely amazing.	0.861	15.721
This brand makes me feel very happy.	0.910	17.248
I love this brand.	0.929	17.885
I have a particular feeling for this brand.	0.875	16.155
I am in love with this brand.	0.887	16.531
Brand Loyalty		
This is the only brand I will consider in the future when buying this product.	0.908	17.013
When I go shopping, I don't even look at competing brands.	0.881	16.177
If the shop I usually go to doesn't have the brand available, I either postpone my purchase or look for it in another shop.	0.841	15.010
I prefer to be deprived of the brand than to buy another brand.	0.841	15.004
Brand WOM		
I talk about this brand with my friends.	0.838	15.062
I try to spread the good name of this brand.	0.971	19.357
I am constantly doing good publicity for this brand.	0.889	16.582

4.2. Structural Model

The structural model fits the data very well (X^2=565.373, df=264, p<0.01, X^2/df=2.141, NFI=0.91, IFI=0.95, TLI=0.94, CFI=0.95, RMSEA=0.073). This model is represented in Figure 2.

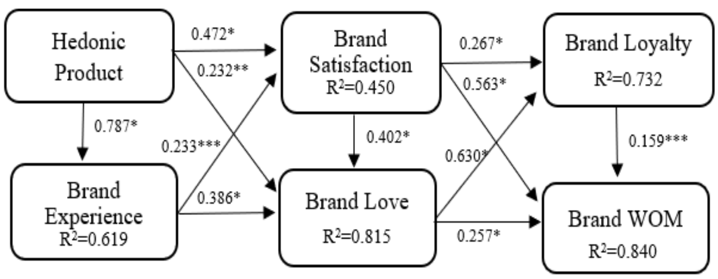

Figure 2 – Structural Model

Note: * p<0.001; ** p<0.01; *** p<0.05; R^2=*Squared Multiple Correlations*.

The results in Table 3 show the relationships proposed in the structural model. The model supports the eleven proposed hypotheses.

Table 3 - Estimation results of the structural model

Path	Standardized Loadings	t-value	Hypothesis
Hedonic Product --> Brand Satisfaction	0.472*	4.573	H1 (+): S
Hedonic Product --> Brand Love	0.232**	3.260	H2 (+): S
Hedonic Product --> Brand Experience	0.787*	10.508	H3 (+): S
Brand Experience --> Brand Satisfaction	0.233***	2.284	H4 (+): S
Brand Experience --> Brand Love	0.386*	5.353	H5 (+): S
Brand Satisfaction --> Brand Love	0.402*	7.581	H6 (+): S
Brand Satisfaction --> Brand Loyalty	0.267*	3.676	H7 (+): S
Brand Satisfaction --> Brand WOM	0.563*	8.543	H8 (+): S
Brand Love --> Brand Loyalty	0.630*	8.071	H9 (+): S
Brand Love --> Brand WOM	0.257*	3.429	H10 (+): S
Brand Loyalty --> Brand WOM	0.159***	2.202	H11 (+): S

Note: * p<0.001; ** p<0.01; *** p<0.05 (one tail tests).

According to Bollen (1989), it is very important to analyze the effects of total effects (direct and indirect effects) because an examination of only the direct effects could be misleading. The analysis of indirect effects highlights the importance of mediating variables in explaining social media adoption. Thus, in Table 4, we can observe the standardized direct, indirect and totals effects.

Table 4 - Standardized direct, indirect, and total effects

Paths	Direct Effects	Indirect Effects	Total Effects
Hedonic Product →Brand Experience	0.787*		0.787**
Hedonic Product → Brand Satisfaction	0.472*	0.183***	0.655*
Hedonic Product → Brand Love	0.232**	0.567*	0.799*
Hedonic Product →Brand Loyalty	-	0.678*	0.678*
Hedonic Product →Brand WOM	-	0.682*	0.682*
Brand Experience →Brand Satisfaction	0.233***	-	0.233***
Brand Experience → Brand Love	0.386*	0.094***	0.480*
Brand Experience → Brand Loyalty	-	0.364*	0.364*
Brand Experience → Brand WOM	-	0.312**	0.312**
Brand Satisfaction → Brand Love	0.402*	-	0.402*
Brand Satisfaction → Brand Loyalty	0.267**	0.253*	0.520*
Brand Satisfaction → Brand WOM	0.563*	0.185*	0.748*
Brand Love → Brand Loyalty	0.630*	-	0.630*
Brand Love → Brand WOM	0.257**	0.100***	0.357*
Brand Loyalty → Brand WOM	0.159***	-	0.159***

Note: * p<0.001; ** p<0.01; *** p<0.05.

We used the bootstrapping technique with a sample of 2,000 random observations generated from the original sample, and a confidence interval of 95% was also used in the estimation of the proposed model. This is because the analysis of total and indirect effects is only possible with the use of this method of estimation.

5. Discussion and Conclusions

The hedonic product has a very strong effect on brand experience, then on brand satisfaction, and finally on brand love. In other words, the hedonism associated with the product motivates a stronger experience with the Apple brand. Additionally, the hedonic product enhances brand satisfaction. The influence of the hedonic product on brand love is weaker, although significant. Yu and Yan (2019) demonstrated a very strong effect of the hedonic product on brand experience. Li et al. (2021) also found a strong impact of the hedonic product on brand satisfaction. Finally, Bragagnolo et al. (2020) showed that the hedonic product has a significant influence on brand love.

The experience with the Apple brand strongly influences the love for this brand. Apple brand customers are also satisfied when their experience with the brand is favourable. Rodrigues and Brandão (2021) confirmed that experience with the brand has a positive impact on brand love. Meanwhile, Slaton et al. (2020) demonstrated a direct effect of brand experience on brand satisfaction.

Apple brand satisfaction has the strongest effect on brand word-of-mouth, followed by its impact on brand love, and then on brand loyalty. In the study by Sukhu et al. (2019), brand satisfaction has a significant impact on brand word-of-mouth. Slaton et al. (2020) highlighted that brand satisfaction positively influences brand love. According to Song et al. (2019), brand satisfaction has a positive effect on brand loyalty.

Apple brand love positively influences both brand loyalty and brand word-of-mouth. As in in our study, Martín et al. (2020) demonstrated that the relationship between brand love and brand loyalty is stronger than the relationship between brand love and brand word-of-mouth. Finally, in our work, as well as in the study by Coelho et al. (2019), brand loyalty has a positive effect on brand word-of-mouth.

In summary, when only the direct effects are analysed, the hedonic product has the strongest impact on the experience with the Apple brand, followed by its effect on brand satisfaction. The strongest direct impacts on Apple brand love come from brand satisfaction and experience with this brand. Experience with the Apple brand, in addition to its effect on brand love, also has a significant effect on brand satisfaction. Regarding Apple brand loyalty, love for this brand has a much stronger direct effect than brand satisfaction. When it comes to word-of-mouth about the Apple brand, satisfaction with this brand has a stronger direct effect than brand love. Apple Brand loyalty also has a significant but weaker direct effect on brand word-of-mouth.

It should be stressed, however, that the total effects (direct and indirect) should be investigated, because considering the total effects will give us a more rigorous assessment of the relationships between the variables under analysis. The strongest total effect (direct and indirect) on Apple brand love resulted from Apple having hedonic products, followed by experience with the brand, and finally, brand satisfaction. Once again, the hedonic product proved to be crucial for Apple brand satisfaction, as its total effect was very strong. Regarding total effects on Apple brand loyalty, the hedonic product is once again fundamental in achieving loyalty to this brand. Apple brand love and brand satisfaction also have a very strong total effect on loyalty to this brand. The impact of experience with the Apple brand on brand loyalty is weaker. Lastly, in Apple brand word-of-mouth, the strongest total impact comes from satisfaction with Apple brand, followed closely by the hedonic product, which also exerts a very strong influence. Experience with the Apple brand and brand love have a significant impact on brand WOM, though not as strong. As for the impact of Apple brand loyalty on brand word-of-mouth, the effect, while significant, was weaker.

In summary, Apple has always emphasized the hedonic nature of its products, which has been a successful marketing strategy. As we have seen, this feature of its products enhances the experience with the brand and fosters brand love, brand satisfaction, brand loyalty, and brand word-of-mouth.

6. Implications and Limitations

6.1. Theoretical Implications

Much of the interest of the present work lies in the analysis of the variables that are antecedents and consequences of Apple brand love. Apple products are considered hedonic, leading customers to experience unforgettable moments that will both satisfy them and make them love the brand. In turn, brand satisfaction and brand love encourage brand loyalty and word-of-mouth about Apple. Finally, loyal customers speak positively about the Apple brand. Therefore, our intention is to contribute to the analysis of the main determinants and consequences of Apple brand love.

6.2. Management Implications

The main objective of this research was to assess the antecedents and consequences of love for Apple brand products. This brand seems to be associated with hedonic and experiential aspects that are extremely important for its customers to feel satisfied with the brand and develop a deep love for the Apple brand. When this happens, Apple brand customers become brand loyal and recommend the brand to others.

6.3 Limitations and Future Research

The results of the research should be interpreted taking into consideration certain limitations. Future studies may examine other determinants of Apple brand love. Other consequences of Apple brand love may also be researched.

Given that the present study used cross-sectional data, it would also prove of great interest for future research to use a longitudinal sample to assess the nature of loyalty and word-of-mouth over time.

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Digital marketing and sustainable tourism:

a resiliency proposal

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Abstract

Social media and digital marketing are increasingly used in order to shape the behavior of individuals. With their far-reaching influence, they have emerged as powerful tools for promoting sustainable behaviors. Consequently, it has become imperative to develop a meticulous strategic plan that integrates both digital marketing and social media, thus building a lasting communication network that inspires tourists to adopt sustainable practices during their travels. This approach can contribute to the promotion of sustainable tourism and, at the same time, positively contribute to environmental conservation efforts on a global scale. 422 individuals participated, 149 (35.2%) male, 273 (64.5%) female and 1 (0.2%) participant of another sex, aged between 18 and 73 years, with an average age of 42.74 years (SD = 15.94%). Using structural equation modeling, the relationships between sustainable destination measures, social networks, tourists' predisposition to sustainability, and tourists' sustainable behaviors were analyzed. The results of this research suggest that the sustainable measures implemented by the tourist destination have an impact on the adoption of sustainable behaviors among tourists, when mediated using social networks by the destination or by the prior predisposition of tourists to adopt these behaviors. However, the sustainable measures of the tourist destination alone are not sufficient for tourists to adopt sustainable behaviors. The application of the model makes it possible to identify the advantages of digital marketing and social networks in sustainable tourism and thus promote a resilient environment for the tourist market in Portugal.

Keywords: Digital marketing, Social networks, Sustainable tourism, Sustainability, sustainable development, Structural Equation Modeling (SEM)

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1. Introduction

The tourism sector has undergone significant changes in recent years due to the rapid advancement of technology, as well as the impacts of the SARS-CoV-2 pandemic. To keep up with these changes, tourist destinations must adapt to new marketing strategies that use digital platforms.

In addition, it is also essential that tourism be sustainable to guarantee the long-term viability of destinations and their economies. Research (e.g., Putra et al., 2021) demonstrated that sustainable tourism is not only a matter of a company committed to social responsibility, but also involves three dimensions: economic, environmental and social.

The collaboration of these three dimensions gives rise to innovations in the tourism sector that can increase the resilience and competitiveness of destinations. Therefore, it is important to propose digital marketing strategies that give priority to sustainability to create resilience in the tourism sector. The proposal of digital marketing strategies requires the incorporation of sustainable principles in tourism planning and practices to create a win-win situation between industry and natural resources. In this sense, this study aims to contribute to the understanding of the role that digital marketing can play of sustainable tourism destinations, as well as contribute to the construction of their resilience.

However, the construct of resilience, understood, in tourism, as the "persistence of systems and their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables" (Holling, 1973, p. 14) is not present in the structural model, since the focus is to test the proposed structural model and that this, subsequently, contributes to resilience in the sector. To this end, the study will focus on the analysis of the current literature on digital marketing and sustainable tourism to identify the main themes and trends, as well as test the proposed structural model.

Research hypotheses were stipulated with the objective of defining the possible relationships between the constructs present in the study, and measures were also defined that seek to assess the sustainable measures implemented by tourist destinations, the use of social networks by tourists, the predisposition of tourists to adopt sustainable behaviors and the effective adoption of sustainable behaviors by tourists in tourist destinations.

For the development of this study, questionnaire surveys were used, where it was possible to obtain 422 participants during the three-month period, between January 2022 and April 2022. The results obtained allowed us to test the structural model and carry out a path analysis that allowed us to confirm the hypotheses under study, as well as to prove the suitability of the data to the model.

This article is comprised of six main sections. After this introduction, the second section is dedicated to the literature review, which summarizes contributions on digital marketing, social networks, measures implemented for sustainable tourism, predisposition and behaviors adopted by tourists. Subsequently, the third section presents the methodology of this study, the fourth section consists of the analyses performed and the fifth section presents the results obtained, as well as their discussion. The article ends with the conclusion, the main limitations, and suggestions for future research.

2. Literature Review

2.1. Digital Marketing and Social Networks

In the current digital era, in which traditional marketing methods have taken a back seat and companies are increasingly resorting to online advertising, social networks play a fundamental role in the success of digital marketing campaigns (Housley et al., 2018). Social networks such as TikTok, Facebook, Twitter, Instagram and LinkedIn offer companies an economic platform to promote their products or services through digital marketing.

The use of emojis is also a common practice on social networks, especially in digital marketing. Previous research (e.g., Huang et al., 2021; Wang et al., 2023) shows an influence of emojis on social networks on the involvement of the media and on the intention of cooperation in environmental campaigns. In addition, social networks also facilitate two-way communication between companies and customers, allowing for a personalized experience that is crucial for experimental marketing campaigns. These campaigns have the potential to influence consumers' social norms, attitudes, and buying behaviors, regardless of the regulations themselves.

In the tourism sector, social networks have emerged as a powerful tool for digital marketing campaigns. By harnessing the potential of social networks, tourism companies are reaching a wider audience and creating new experiences (Ndekwa & Katunzi, 2016). Tourism companies can build a digital identity and establish a financial infrastructure that promotes sustainable development, as part of the digital transformation in tourism (e.g., Dabeedooal et al., 2019; Wang et al., 2022). In addition, social media campaigns have become a strategy for transmitting messages related to sustainability to society.

2.2. Measures for Sustainable Tourism, Predisposition and Behaviors Adopted by Tourists

Sustainable tourism has become increasingly important in the modern world, as individuals are increasingly aware of the impact that tourism can have on the environment and local communities (e.g., Parmawati et al., 2020; Wang et al., 2023). Sustainable tourism is a broad concept, with different interpretations, however, to guarantee sustainable tourism development, the authors agree that it is essential to apply measures that address the economic, environmental and social aspects of tourism (e.g., Niavis et al., 2019; Nurjaya, 2022).

One way to achieve sustainable tourism development is through the adoption and implementation of sustainable measures in the tourist destination. These measures include actions such as reducing the environmental impact of tourist activities, supporting local communities through the use of their resources and knowledge, the promotion of cultural heritage and traditions, the improvement of the quality of life of local residents, the protection and respect for the environment by reducing pollution, recycling, the use of renewable energies and the conservation of natural areas (e.g., Francis et al., 2019; Horn & Proksch, 2022; Niavis et al., 2019; Parmawati et al., 2020; Zhao & Li, 2018). As more and more tourists travel responsibly, the sustainability of a tourist destination can have a significant impact on your choice of destination. Tourists tend to prefer destinations that have adopted sustainable measures to preserve the environment and promote responsible tourism practices.

According to Flagestad and Hope (2001), the application of strategic management theories developed for companies can be applied to manage a tourist destination in a sustainable way. This includes focusing on long-term sustainability objectives, incorporating sustainable practices into all aspects of the operation, involving stakeholders and the local community in decision-making processes, and continuously monitoring and evaluating the impacts of tourism on the destination. Having said that, we formulate the following hypothesis:

Hypothesis 1: It is estimated that the adoption and implementation of sustainable measures in the tourist destination is directly related to the use of social networks by tourists.

In addition, tourists themselves can adopt responsible behaviors to contribute to sustainable tourism. This includes activities such as reducing water and energy consumption, turning off all equipment or air conditioning when leaving a room, avoiding single-use plastic products, supporting businesses and local communities, respecting cultural norms and values, reusing towels and sheets in the chosen accommodation, traveling on foot, by bicycle or public transport, and recycling (e.g., Dolnicar, 2023; Hu et al., 2021; Singh & Ogbeide, 2018). In this sense, he will formulate the following hypothesis:

Hypothesis 1.1: It is estimated that the adoption and implementation of sustainable measures in tourist destinations is indirectly related to the behaviors adopted by tourists in tourist destinations through the use of social networks by tourists.

Culture influences tourists' attitudes and behaviors regarding sustainability in their favorite destinations (Aydın & Alvarez, 2020). Thus, it is important that managers not only implement sustainable measures, but also educate tourists about their role in the preservation of the environment and encourage them to adopt sustainable behaviors during their trips. The behavior of tourists plays a fundamental role in promoting the development of sustainable tourism. Destination marketing and communication tools are effective in influencing tourists' decision-making processes to adopt sustainable behaviors (Shen et al., 2020). The following hypothesis was defined:

Hypothesis 2: It is estimated that the adoption and implementation of sustainable measures in the tourist destination is directly related to the behaviors adopted by tourists.

The predisposition of tourists to adopt sustainable behaviors has increased in recent years (Aydın & Alvarez, 2020). This leads to a shift in the tourism industry towards promoting sustainability as an important factor to consider when choosing a travel destination (Almeida-Santana & Moreno-Gil, 2019). In fact, tourists may be predisposed to adopt sustainable measures in destinations. To this end, this predisposition may be reflected in the choice of the destination through the sustainable practices adopted by them, payment of additional amounts for services called sustainable, and loyalty to destinations for practicing sustainable tourism (e.g., Aydın & Alvarez, 2020; Marchi et al., 2021; Solis-Radilla et al., 2019). Thus, the following hypotheses were defined:

Hypothesis 3: It is estimated that the adoption and implementation of sustainable measures in tourist destinations is directly related to the predisposition of tourists to adopt sustainable behaviors in tourist destinations.

Hypothesis 3.1: It is estimated that the adoption and implementation of sustainable measures in tourist destinations is indirectly related to the behaviors adopted by tourists in tourist destinations through the predisposition of tourists to adopt sustainable behaviors in tourist destinations.

Figure 1 shows the causal relationships between the previously presented research hypotheses.

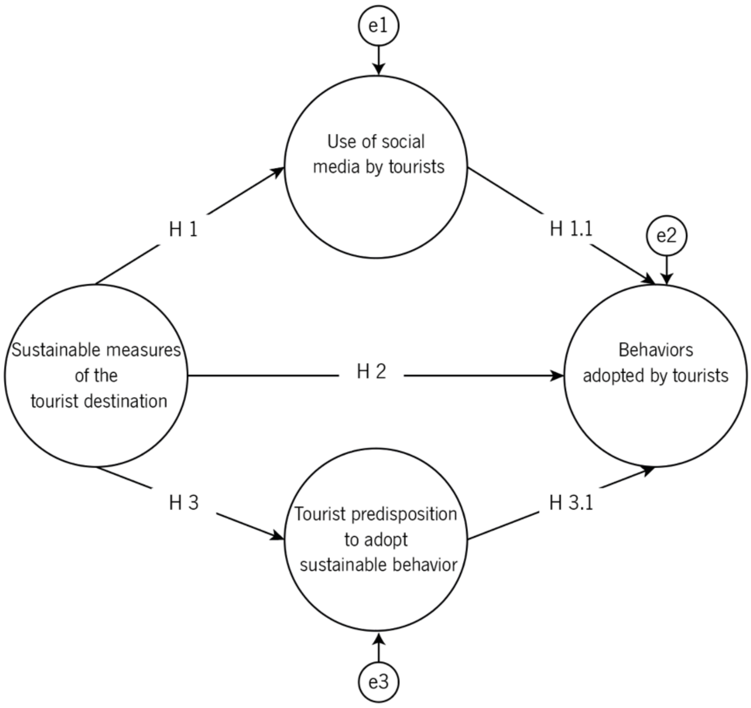


Figure 1 – Proposed Structural Model

Source: Own elaboration

3. Method

The investigation was conducted using a non-probabilistic convenience sample. Questionnaire surveys were accessible online for the three-month period from January to April 2022 and were no longer available after this period for data collection purposes. It is important to take these limitations into account when interpreting the results and drawing conclusions from this study.

Initially, the participants received a request for informed consent that described various aspects of the research project, such as its purpose and confidentiality measures. Subsequently, they were presented with a set of questionnaires related to different facets of digital marketing and sustainable tourism. These included issues related to the use of social networks by tourists, the measures implemented by destinations for sustainable tourism, the predisposition and behaviors adopted by tourists when visiting destinations. Finally, the participants filled out a sociodemographic questionnaire with personal information. Overall, this comprehensive approach aimed to gather valuable information about contemporary trends in digital marketing practices, as well as their impact on environmental sustainability efforts.

3.1. Characterization of the Participants

The sample has 422 participants, 148 (35.1%) men, 273 (64.7%) women and 1 (0.2%) participant from another gender. The age of the participants is between 18 and 73 years, with an average age of 42.77 years (SD= 15.94%), of which 420 (99.5%) are of Portuguese nationality, 2 (0.5%) are of Brazilian nationality.

Table 1 shows the geographical distribution of the participants in Mainland Portugal, the majority from the North region, 174 (41.2%). Regarding marital status, 175 (41.5%) are married, 163 (38.6%) are single, 36 (8.5%) are divorced, 36 (8.5%) are in a consensual union, 4 (0.9%) are separated, and 4 (0.9%) are widowed, and 4 (0.9%) are at another level of civil commitment. Regarding education, 165 (39.1%) have doctorates, 100 (23.7%) have degrees, 86 (20.4%) have master's degrees, 38 (9%) have post-doctorates, 31 (7.3%) have secondary education, 1 (0.2%) have specialization and, finally, 1 (0.2%) have a bachelor's degree.

Table 1 – Distribution of participants per region

Mainland Portugal Region	Number of participants	Percentage of participants
North	174	41,20%
Center	114	27,00%
Lisbon Metropolitan Area	80	19,00%
Alentejo	20	4,70%
Algarve	15	3,60%
Azores Autonomous Region	8	1,90%
Madeira Autonomous Region	5	1,20%

Source: Own elaboration

3.2. Instruments

To measure the variables under study, we structured measures based on the literature review conducted. To assess the adoption and implementation of sustainable measures in the tourist destination, a scale was constructed consisting of eight items (e.g., item one "The destination respects and protects the environment."), answered on a Likert-type response scale, between 1 (very low) and 5 (very high), which for the present study sample showed a good internal consistency index, according to Cronbach's Alpha (α=.95) presented by Gliem and Gliem (2003). To assess the use of social networks by tourists, a scale consisting of six items was constructed (e.g., item three "The information I find on social networks influences the choice of a tourist destination or the purchase of a product."), answered on a Likert-type response scale, between 1 (I totally disagree) to 5 (I totally agree), which for the present study sample, presented a good internal consistency index (α=.83). To assess the behaviors adopted by tourists, a scale consisting of seven items was constructed (e.g., item six "I reused the towels and sheets in my accommodation."), answered on a Likert-type response scale, between 1 (always) and 5 (never), which for the present study sample, presented an acceptable internal consistency index (α=.78). To assess tourists' predisposition to adopt sustainable behaviors in tourist destinations, a scale was constructed consisting of four items (e.g., item one "I would visit a destination due to the sustainable practices that are adopted there."), answered on a Likert-type response scale, between 1 (I totally disagree) to 5 (I totally agree), which for the present study sample, presented a good internal consistency index (α=.81).

4. Analyses

Statistical analyses were performed using the Statistical Package for the Social Science (IBM SPSS), version 28.0 for Mac and the Analysis of Moment Structures (AMOS), version 28.0 for Windows.

Table 2 shows the correlations between the variables under study, the internal consistency indices of the structural model variables, for the total sample (n=422), the average values and the standard deviations. The magnitude of the relations indicates the presence of moderate relations ($.30 < r < .50$) and of strong relationships ($r > .50$) (Cohen, 1988) between the variables, without the existence of multicollinearity. Furthermore, the correlations are statistically significant ($p < .001$), thus fulfilling the linearity assumption.

Table 2 – Correlations between study variables, mean values, standard deviations, and internal consistency indices (N=422)

	Adoption and implementation of sustainable measures in the tourist destination	Use of social networks by tourists	Behaviors adopted by tourists	M	DP	α
Adoption and implementation of sustainable measures in the tourist destination	.	.	.	31.33	6.56	.95
Use of social networks by tourists	. 15**	.	.	22,61	4.44	.83
Behaviors adopted by tourists	.18**	. 11**	.	28.53	3.17	.78
Tourists' predisposition to adopt sustainable behaviors	.50**	.13**	.30**	15.28	2.70	.81

*Note: ** p < .01*

Source: Own elaboration

The statistical assumptions inherent to structural equation models were verified, namely: (1) lack of multicollinearity (Cohen, 1988); (2) the principle of linearity of relations (statistically significant correlations between variables, Marôco, 2010); (3) minimum sample size between 100 and 200 participants (Schumacker & Lomax, 2010).

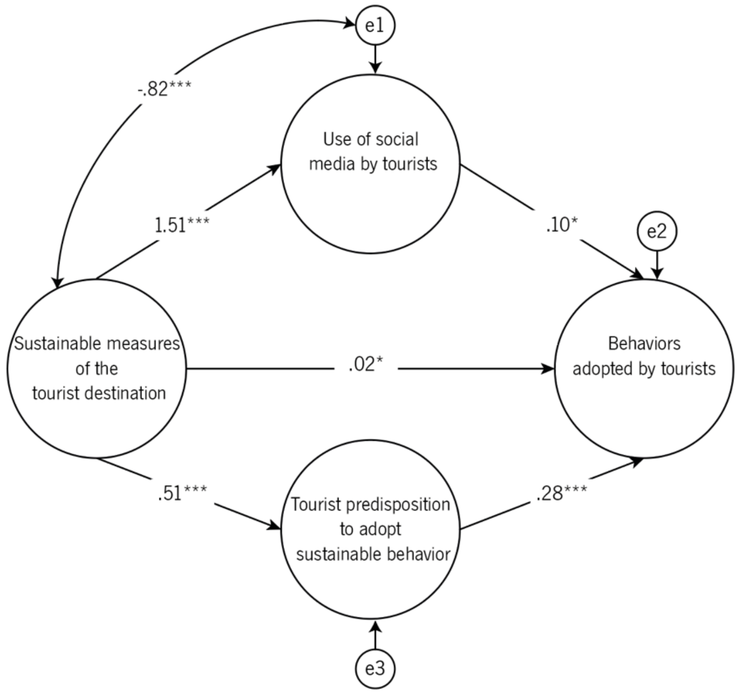
However, a violation of the (4) multivariate normality was found when sk=ku=0, (Mardia coefficient ~3), so the bootstrapping method was used with 500 samples and a 95% confidence interval (e.g., Marôco, 2010; Gilson et al., 2013) and the absence of extreme outliers (Mahalanobis Distance < .001), and in the case of the presence of outliers, the analyses were performed without them.

Subsequently, path analysis was performed to assess whether the structural model was well adjusted to the data and whether the hypotheses defined later are verified, thus confirming the existence, or not, of the proposed relationships between the constructs.

The structural model, without outliers, showed a very good CFI value (⩾.95; for the present sample .98), a very good GFI value (⩾.95; for the present sample .99), a good RMSEA value (.05>RMSEA<.10; for the present sample .08) and an AIC value of 67.23.

5. Discussion

Figure 2 shows the standardized estimates between the constructs of the final structural model. These estimates were analyzed and normalized to provide an academically rigorous representation of the relationships between these key components.



*Note: *** p < .001; * p < .05*

Figure 2 – Final Structural Model

Source: Own elaboration

The results point to statistically significant relationships between the constructs, and it is possible to verify that there is a direct relationship between the adoption and implementation of sustainable measures in the tourist destination and the use of social networks by tourists (β=1.51); there is a direct relationship between the adoption and implementation of sustainable measures in the tourist destination and the behaviors adopted by tourists when visiting destinations (β=.02) and there is also a direct relationship between the adoption and implementation of measures sustainable in tourist destinations with the predisposition of tourists to adopt sustainable behaviors (β=.51). With regard to the indirect effects, it is possible to verify that the adoption and implementation of sustainable measures in the tourist destination are indirectly related to the behaviors adopted by tourists in tourist destinations through the use of social networks by tourists (β=.15*) and it appears that the adoption and implementation of sustainable measures in the tourist destination is indirectly related to the behaviors adopted by tourists in tourist destinations through the predisposition of tourists to adopt sustainable behaviors in tourist destinations (β=.14*)

In view of these results, it is possible to confirm all the hypotheses initially formulated.

The results indicate that social media campaigns emerged as an effective tool for communicating messages related to sustainability to society, as already presented by previous research (e.g., Dabeedooal et al., 2019; Wang et al., 2022). This disruptive digital modification has particularly affected the tourism industry, leading to a shift in how destinations are marketed and promoted (Arasli et al., 2021). The advent of social media has revolutionized tourism communication and provided destination marketing tools to promote sustainability initiatives (Arasli et al., 2021). By leveraging the vast reach and influence of these platforms on consumer decisions, sustainable destination marketers can effectively promote their ecological practices, while educating tourists about responsible travel behaviors - thus contributing positively to achieving sustainable development goals on a large scale.

We can infer, through the results, that tourists play an important role in promoting sustainable tourism, with the adoption of responsible behaviors that contribute to the preservation of the environment and local communities. To do this, they can engage in various activities, such as reducing water and energy consumption levels, making sure that all equipment or air conditioning is turned off when they leave the room, always avoiding single-use plastic products, supporting companies and local communities through ethical spending practices, respecting the cultural norms and values of the host countries visited during their trips.

In addition, tourists can also make conscious efforts to promote sustainable tourism by reusing the towels and sheets provided at the accommodation facilities instead of ordering new towels every day. Moving responsibly on foot or by bicycle while exploring destinations, whenever possible, not only reduces carbon emissions, but also provides opportunities for physical exercise while enjoying the beautiful landscape that surrounds them. In addition, participation in recycling programs created at tourist sites promotes environmental awareness among fellow travelers, while contributing positively to the reduction of waste production (e.g., Dolnicar, 2023; Hu et al., 2021; Singh & Ogbeide, 2018).

The predisposition of tourists and the effective adoption of sustainable behaviors by tourists when traveling to destinations has increased significantly in recent times, according to research by Aydın and Alvarez (2020). The results obtained corroborate this trend of change, which is significant in the tourism industry, where the promotion of sustainability has become an essential aspect to consider when choosing a travel destination (Almeida-Santana & Moreno-Gil, 2019). In fact, tourists have shown an inclination to adopt ecological measures during their trips. This is manifested in various ways, such as the choice of destinations that practice sustainability or offer sustainable services. In addition, they also do not hesitate to pay more for these offers and tend to show loyalty to places that follow ecological practices - all indicators of tourists' growing appreciation for environmentally conscious choices (e.g., Marchi et al., 2021; Solis-Radilla et al., 2019).

One important aspect of sustainable tourism is the ability to adapt and be resilient in the face of challenges. Resilience in the tourism industry, defined as "the ability of systems to adapt to and recover from disturbances while maintaining their essential functions" (Holling, 1973, p. 14), is crucial because with the increasing impacts of climate change, it is imperative that destinations address their environmental footprints and adopt sustainable initiatives. Governments around the world recognize this need for resilience and are actively seeking ways to promote long-term sustainability in tourism. One approach is through digitalization and innovation, leveraging technology's potential to transform operations within the industry. By embracing digitization and adopting new technologies, businesses can enhance competitiveness on a global scale during these challenging times. Furthermore, information technology plays a pivotal role in promoting products and marketing strategies that support good governance principles. Implementing effective promotion campaigns utilizing digital platforms will expedite recovery efforts not only for the tourism sector but also small- and medium-sized enterprises involved.

Digital marketing plays a crucial role in promoting sustainability in the tourism industry and increasing its resiliency (Corte et al., 2021; Luo et al., 2022). Digital marketing can improve destinations' image and showcase their commitment to sustainability. By utilizing social media platforms, destinations can communicate their initiatives and efforts towards sustainability to a wide audience. Through social media, destinations can share information about conservation initiatives, eco-friendly accommodations and activities, and community involvement in sustainable practices.

6. Conclusions

In conclusion, sustainable tourism has become increasingly important in the sector due to global concerns such as climate change and social responsibility. The adoption of sustainable tourism requires collaboration between tourists, service providers and host communities and thus contributing to the resilience of the sector in the face of times of crisis.

The adoption of ecological behaviors by tourists increases their positive impact on the environment, while promoting local economic development. Marketing strategies that promote sustainable tourism formats can also bring about an effective change in behavior, which is beneficial for both service providers and travelers. Thus, to recover sustainably from uncertain pandemic circumstances, it is vital to adopt research models related to Tourist Co-Creation Behavior. The future of the tourism industry depends on a conscientious approach.

The findings of the study underline the importance of tourist destinations to create a robust digital identity and develop a solid financial infrastructure that promotes sustainable growth, thus boosting the digital transformation in tourism. Notably, the investigations of Dabeedooal and colleagues (2019) and Wang and colleagues (2022) provide evidence that supports this notion.

The study presents as suggestions for future research the need to investigate or other factors that are associated with the error between the construct of adoption and implementation of sustainable measures in the tourist destination and the construct of the use of social networks by tourists, to understand what other factors can explain this relationship. Furthermore, as a limitation, the sample is non-probabilistic by convenience, which does not allow generalizing the results. In this sense, as a future perspective, it would be relevant to conduct further research in this area with structured data collection that would allow the generalization of the results.

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LGBT Tourism: Hotel Industry and Local Community Perceptions and Attitude

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Abstract

In tourism, the achievement of acceptance, freedom of expression, equal rights, and respect in various destinations and public spaces has stimulated growing interest from companies and destinations, reinforced by the strong purchasing power and the availability for more frequent trips by LGBT community (Baxter, 2010; WTO, 2017). For a destination that aims to attract and build a strong relationship with the LGBT market, it is vital, regardless of their motivation, to offer a safe and welcoming environment, interacting with understanding and respect. This study analyses the North of Portugal stakeholders' attitudes and perceptions, particularly the hotel industry and the local community, towards the LGBT tourism/market. By conducting two separate studies that complement each other, it was concluded that the region has the right conditions to engage in LGBT tourism and captivate this market segment, but for this, there are still slight prejudices that must be corrected.

Keywords: Discrimination, Hospitality, LGBT tourism, Northern Portugal, Stakeholders

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1. Introduction

Similar to what happens at national and international level, there is a before and an after Covid 19 in the tourism performance of Northern Portugal. Until then, this region showed a highly competitive behaviour, with above-average growth in Portugal (+7.9%), overnight stays reaching 10.8 million in 2019 (Turismo de Portugal, 2021). In the 2nd and 3rd quarters of 2020, a sharp drop in tourism performance is observed in the order of 89.1% and 49.7%, respectively, compared to the same period (CCDR-N, 2020).

Regardless of the current pandemic situation, it is common knowledge that tourism is vital to the economic growth of various countries and regions, and it is expected that, with the gradual generalization of the vaccine for COVID-19, consumer confidence will be re-established, travel restrictions will decrease, and travel and tourism will normalize during the next year (WTO, 2021). In this context, the destination Porto e Norte de Portugal (PNP) must "prepare the ground" to receive tourists with the hospitality as usual.

For the tourist segment targeted by this study - the LGBT tourist - in clear growth but very susceptible to the social character of the destination, some relevant questions urgently need to be answered. Does the hospitality of people from the North also apply to LGBT tourists? Can and should the destination Porto e Norte de Portugal invest in LGBT tourism?

LGBT tourism is a niche tourism aimed at developing and marketing products and services attractive to the LGBT (lesbian, gay, bisexual, and transgender) market that has evolved considerably in both demand and supply. The LGBT tourist is an experienced traveller and demonstrates an above-average aptitude for consumption. With an estimated purchasing power of more than €3 trillion per year and a population of 371 million individuals globally (+15 years old) (LGBT Capital, 2020a), the LGBT community makes, on average, four trips and stays eleven nights in a tourist accommodation unit (CMI, 2019), with spending over €100 billion in incoming tourism alone. In Portugal, the revenues exceed 2 billion in 2019 (LGBT Capital, 2020b; Variations, 2020).

These data leave no doubt about the potential of LGBT tourism and, in a differentiating and captivating perspective of this segment, countries, and regions make a point of promoting themselves as LGBT-friendly destinations. According to the available literature, this market segment is still underdeveloped, so it is pertinent to analyse the opportunities and requirements of this market to satisfy its expectations and build its loyalty and understand the performance of stakeholders in the North region towards this market. To understand, through e-mail (request for the availability of accommodation) and an online survey, the reactions and attitudes of front office professionals and the local Northern community towards the market - hospitality, acceptance or prejudice/discrimination based on sexual orientation and gender identity are key issues to be clarified in this study.

2. The LGBT Tourism

The tourism industry is in constant mutation. The emergence of new technologies and tenacious changes in behaviours and desires of tourists leads to the appearance of different tourism products through the creation of new resources and attractions and the development of those already on the market. This mutability requires the adaptation in a persistent way of tourism activity to the real desires of consumers (Medaglia, Maynart & Silveira, 2013).

For this purpose, it is essential to analyse and knowledge of tourists' characteristics, needs, motivations, and consumption habits, and, simultaneously, the resources and products that the destination has to offer to adapt the tourism activity to the real desires of consumers and the destination's capacity. Tourists differ in their motivations, needs, desires, and other characteristics, so ignoring these differences and creating an undifferentiated destination marketing will lead to the satisfaction of a residual number of people (Dolnicar, Lazarevski & Yanamandram, 2013) and, consequently, to the failure of the sector.

Currently, new niche markets are the target of study, being one of them the LGBT market. This research process has been facilitated by the growing number of LGBT individuals willing to identify themselves. However, there are still over 70 countries where homosexuality is illegal, making it impossible to quantify the actual size of the LGBT community (WTO, 2017).

Nevertheless, policymakers and businesses recognise the importance of these growing minority subcultures in size, increased purchasing power, and greater political and cultural awareness and pride alongside the need to respond to consumer differences with strategies to differentiate and capture these markets. The visibility, acceptance, and legal recognition of the equal rights of people in the LGBT community in many countries has fostered the confidence of destinations and tourism businesses to target LGBT consumers. The tourism sector was one of the economic sectors that led the way in targeting the LGBT market not simply because of the "purchasing power" factor but because tourism is a sector associated with openness, diversity, acceptance, and the celebration of differences among people around the world (Jordan & Traveller, 2018).

The phenomenon of niche tourism targeting the market of lesbian, gay, bisexual, and transgender people encompass several concepts and specificities that provide the creation of several subgroups and terminologies subject to change and in permanent evolution over time - gay tourism, gay and lesbian tourism, queer tourism, pink tourism, LGS tourism, LGBT tourism, LGBTI tourism, LGBT+, LGBTQ, LGBTQ+, LGBTIQ etc. According to Community Marketing & Insights (2019), the LGBT terminology is preferred by the whole community (particularly by older generations) and is considered by organisations to be the 'safest'.

LGBT tourism comprises those activities undertaken and marketed to attract the LGBT (lesbian, gay, bisexual, and transgender) market, or those that by nature and/or design appeal to and are pursued by the LGBT market. The interaction between suppliers, managers, facilitators and consumers of the LGBT tourism product and service and their subsequent relationship is integral to the concept (Southall & Fallon, 2011; WTO, 2012).

In the view of several authors (Hughes, 2002; 2005; Jordan & Traveller, 2018; Kyriakaki & Abanoudis, 2016; Paradela, Gonzalez & Vila, 2014; Poria, 2006; Ram, Kama, Mizrachi & Hall, 2019; Sanches, Mancini & Nascimento, 2011; Weeden, Lester & Jarvis, 2016; WTO, 2012; 2017) this market represents a relevant contingent, with an above-average cultural level, high probability of taking holidays, frequent holidays and with high income and spending, therefore, an important consumer segment. For many, frequent travelling represents a valuable opportunity for personal enrichment and socialisation and to live more freely when this is not possible in their place of residence (Jordan & Traveller, 2018).

However, the LGBT segment is not homogenous; quite the contrary, it is a highly diverse segment (Jordan & Traveller, 2018). The experience of LGBT tourist, like travellers in general, can vary according to gender, race, income, social class, age, among other criteria (WTO, 2017). Community Marketing Inc., a consultancy company, recognised worldwide for its LGTB relevance, in the studies conducted on LGBT tourism and hospitality, carries out the delimitation of the community by sub-niches, subdividing them not only according to gender "Gay & Bi Men" and "Lesbian & Bi Woman" "Gender Expansive", but also in generational terms "Millennials+", "Generation X" and the "Boomers".

CMI (2011; 2018; 2019) reports that gay and bisexual men travel around 3.9 times a year and are more likely to go to urban, LGBT hotspots (experience with the local LGBT community, events, and nightlife) and warm-weather destinations, whereas gay and bisexual women travel 3.3 times a year and preferentially seek LGBT friendly, beach and nature destinations. In generational terms, "Millennials+" are the most likely to consider themselves "urban travellers", and LGBT hotspots and friendly destinations (CMI, 2018).

In terms of purchasing power, many LGBT tourists consider themselves "moderately priced travellers with a bit of luxury" regardless of their high level of purchasing power. With a slight tendency more toward luxury stand out the Gay and Bi men, Generation X" and the "Boomers", on the opposite side, with a tenuous propensity for more modest spending, the Gay and Bisexual women, the "Gender Expansive" and the "Millennials+" generation (CMI, 2018; 2019). Paradela et al. (2014) highlight that young people (aged 19-25) spend the least, while the highest tourist expenditure per day (+150€) occurs mainly in the over 36 age group. Although the LGBT segment (particularly gay) is often associated with tourists with high purchasing power and luxury travel, most LGBT tourists come from different socio-economic backgrounds and seek experiences at various prices (Jordan & Traveller, 2018).

At the destination choice level, tourists travel for many needs and motivations, and LGBT consumers are no exception. Tourists are seeking social interaction in LGBT circles (freedom, affirmation of their identity, and social interaction with the LGBT community, events, and nightlife), and tourists seeking comfort, relaxation, and cultural offer, but recognise the feeling of safety and respect for LGBT status as key factors in destination choice (Berezan et al., 2015; CMI, 2018, 2019; Hughes, 2002; Hughes & Deutsch, 2010, Paradela et al., 2014).

Several authors are stating the importance of safety, an open-minded and forward-thinking culture, hospitality, a history of acceptance, and equal rights for people from the LGBT community as key elements when choosing a destination (e.g., CMI, 2019; Hodes et al., 2007; Hughes & Deutsch, 2010; Jordan & Traveller, 2018; Monterrubio, 2008; Monterrubio, Madera & Pérez, 2020; Paradela et al., 2014; Pritchard et al., 2000; Ram et al.; 2019; Sanches et al., 2011; Usai, Cai & Wassler, 2020; WTO, 2017). As tourism represents the opportunity to "get away from it all", the desire to escape from the pressure of being gay in the predominantly heterosexual world is undoubtedly one of the main motivations in choosing a destination. LGBT-friendly spaces, a term used to describe places, destinations, and businesses open to welcome and receive with hospitality the LGBT community (Hughes, 2002; CMI, 2017), are for many considered "havens" because they provide a sense of safety, affirmation of identity, therefore are preferable destinations for LGBT tourists (Monterrubio, 2008; Pritchard et al. 2000, Weeden et al., 2016).

The majority opt for four and 5-star hotels or villas and flats in gated communities regarding the selection of tourist accommodation. Gay and bisexual men opt more for urban hotels (luxury hotels, design hotels, and boutique hotels), and lesbian and bisexual women tend to be more varied in accommodation options, more apologists for Airbnb, and outdoor options. As for brand, tourists still consider it essential to stay in a branded hotel with a positive LGBT reputation, with Hilton and Marriott hotel chains being the most popular in this regard (CMI, 2018, 2019). The main motivations when choosing an accommodation beyond the requirements traditionally requested by heterosexuals (quiet rooms, comfortable beds, value for money, late-breakfast, internet, location), LGBT tourists value above all an environment of respect, acceptance, and non-discrimination (CMI, 2011, 2018, 2019; Paradela et al., 2014; Poria, 2006).

For a group that has suffered and continues to suffer repression in many parts of the world, elements such as non-discrimination in relation to gender are important when choosing destinations and their tourism products and services.

In this sense, all those who wish to attract this market must recognise the importance of social acceptance and recognition for all, based on modern, non-discriminatory legislation, with equal rights for all, including same-sex couples (WTO, 2012). Engagement and attraction towards the LGBT market, regardless of their motivation, should have a central focus on creating a safe and welcoming environment for LGBT travellers, interacting with understanding and respect (Jordan & Traveller, 2018). Destinations and businesses should be aware of the need for destination development as a systemic, participatory, sustainable, and persistent process, within which tourism interests, those of the LGBT market, and the interests of destinations both territorially and in terms of their residents should be balanced. It will be useless to offer LGBT-friendly hotel services if the surroundings, such as security, complementary services, access, the population's sense of hospitality, show signs of exclusion and non-acceptance towards the LGBT market. An LGBT-friendly culture should be transversal to all tourism product components and destinations since the LGBT tourist experience is lived in its entirety (Kastenholz, 2005, 2006).

3. Methodology

This research combines qualitative and quantitative techniques and methods. For the analysis of the perception and attitude of the professionals of accommodation units towards the LGBT market, it was decided based on the works of Howerton, Meltzer, and Olson (2012) and Rodrigues, Moniz, and Tiago (2017), to use email to request information and availability of accommodation, using mystery customers (LGBT couple and another heterosexual couple), to analyse whether the LGBT couple is treated differently compared to heterosexuals: rejection in the availability of accommodation, more negative attitudes, less friendly, affectionate, attentive and hospitable due to their sexual orientation. The study's universe was considered the hotel industry (hotels, flats, villas, and tourist complexes) from 4 to 5 stars, which were selected according to the official list of the National Tourism Register available on the Turismo de Portugal portal.

The initial sample was 161 accommodation units. However, for various reasons - accommodation units out of service or exclusive to members; request for information/booking exclusively through the online booking centre; a single booking centre for several hotel chains – we had to reduce the sample to 143 units. In terms of procedure, we decided to create two fictitious accounts on the Gmail email platform, one of the best known and most used in the world. The next step was to send the emails on two different days, but consecutively so as not to raise suspicions about the real interest of the stay in the accommodation unit: first the emails from the homosexual couple on 17 March 2019 and on 18 March 2019 the emails from the heterosexual couple. A total of 286 emails were sent and 187 replies were received, corresponding to 65.4%.

As for the perception of the local Northern community towards LGBT tourism and market, in particular their reactions and attitudes towards the market - hospitality, acceptance or prejudice/discrimination based on sexual orientation and gender identity - and towards LGBT tourism - knowledge and impacts for the region, we opted for an online questionnaire survey. This methodology allowed a more exhaustive study and maintained a perception of total anonymity to the respondents.

The questions were mainly closed-ended, simple choice, multiple-choice, and mostly measurement and scale (Likert of five propositions) to measure the behaviour and attitude of the local North community towards the LGBT market and the impacts of LGBT tourism. The target population consisted of the Northern region community, with the questionnaire applied to a random non-probability sample (Eusébio, Kastenholz, & Carneiro, 2003) consisting of 240 individuals, between March and August 2019.

The information collected through the application of the questionnaire was entered into SPSS (Statistical Package for the Social Sciences), and several statistical procedures were performed: univariate statistics; factor analysis (KMO test and Bartlett's Test of Sphericity applied to assess the adequacy of the factor analysis); comparative analysis (contingency tables, Chi-square ($\chi 2$) test of independence, t-test, and the Kruskal-Wallis test) to identify differences between the sociodemographic variables, gender, age, and educational qualifications; cluster analysis (non-hierarchical method using the k-means clustering algorithm) aimed at identifying groups of residents who are similar in terms of sociodemographic variables and opinions.

4. Results

Tourist accommodation units represent a fundamental pillar for a tourist destination; without them, tourist activity becomes unfeasible, in the same way, that the hotel business cannot survive without tourists. For that very reason, when the North region was investing in LGBT tourism, it was considered essential to listen to the hotel units trying to understand if they were willing to receive people with different sexual orientations and gender identities with the same hospitality and quality of service.

According to our results, the front office professionals of the hotel units that answered the emails did not show any prejudice or discrimination towards LGBT couples (see Table 1), despite the answers projecting poor quality, independently of sexual orientation (for more detailed information, see Silva & Vareiro, 2020). However, some discriminatory behaviours towards homosexuality were identified by some hotel units in the North of Portugal (with emphasis on 4-star units and located in Minho and Trás-os-Montes sub-destinations), although expressed implicitly.

Similar to the study by Howerton et al. (2012), these behaviours are marked by the denial of accommodation availability, to the extent that there was a considerable differential in responses. The results attest that 66% of the front office professionals in the hotel units who rejected the LGBT couple sent an affirmative email of accommodation availability to the HETERO couple.

Table 1: Availability request: perception and attitudes of prejudice

Availability request: perception and attitudes %			Porto		Douro		Minho		Trás-os-Montes		Porto & North of Portugal
			H 4*	H 5*	H 4*	H 5*	H 4*	H 5*	H 4*	H 5*	%
Availability		LGBT	66	67	44	6	40	40	13	100	55
		HETERO	76	75	78	10	71	71	88	100	76
No availability		LGBT	34	33	56	3	60	60	88	0	45
		HETERO	24	25	22	0	27	27	13	0	23
Presence or not of prejudice	Friendliness	LGBT	88	88	100	100	100	100	100	100	93
		HETERO	79	100	86	100	53	100	71	100	74
	Affection	LGBT	12	38	0	25	0	0	0	0	12
		HETERO	4	11	0	14	0	0	0	0	4
	Attention	LGBT	44	63	25	75	44	33	100	100	49
		HETERO	27	44	29	14	34	50	29	100	32
	Hospitality	LGBT	29	50	75	50	17	33	0	100	33
		HETERO	13	56	29	43	13	0	29	100	21

Most of the professionals surveyed responded to the email within two days of receiving it, confirming availability in most of them. However, the non-response was still significant (35%), a high percentage which, as already mentioned, may be symptomatic of some lack of attention to the client (regardless of sexual orientation or gender identity) and professionalism, and this quality deficit will dictate the success or failure in an increasingly competitive market.

As for the local community, key players in the experience of the LGBT tourist who can be directly affected, positively or negatively, by the development of tourism or can affect, positively or negatively, the tourist experience (Pinto & Kastenholz, 2011) the matrix applied in the study allowed to establish a comprehensive methodology that enabled the collection of relevant data for a greater and more detailed knowledge of the perception and attitudes of the local Northern community about the LGBT market and tourism (see Table 2). For more detailed information, see Silva & Vareiro (2021a; 2021b).

The answers gathered from the application of the questionnaire allowed us to ascertain that the respondents are predominantly female, aged between 36 and 50 years old, with higher education, and living primarily in the Minho sub-destination. It should be noted that the method used in this study - the online survey - may have been a conditioning factor for the absence/poor participation of older and less educated people.

The questions arising from the knowledge of LGBT tourism, LGBT-friendly destinations, and the potentialities of the Northern region for this tourism niche became useful and essential as an introductory part of the questionnaire. They made it possible to ascertain that the majority of the surveyed residents know the term and the priority characteristics for an LGBT-friendly destination - "Presence of a tolerant and open population to sexual minorities", "LGBT friendly spaces," and "Safety" (opinions in agreement with several authors analysed in the literature review), identifying as the main LGBT friendly cities in the region, the cities of Porto and Braga and as attraction factors, hospitality, historical and cultural heritage, and nature and rural spaces.

Identifying the population's hospitality as a central element of attraction proves and reinforces the recognition of the northern people's friendliness and hospitality extended to all people regardless of their sexual orientation and gender identity. In their majority, the residents strongly agree on the acceptance and spirit of hospitality towards lesbian, gay, bisexual, and transgender people in the region, being more relevant among female residents and those with higher education. This positive attitude of the local community towards the LGBT market is reinforced by recognizing the region's potential to attract this market and by the incentive to bet on LGBT tourism. For this purpose, it is fundamental to have an open, tolerant, and accepting mentality toward LGBT tourists and the recognition of their civil rights. These variables also received the agreement of most of the residents surveyed, demonstrating greater expressiveness by residents with higher literacy.

Even so, using the scale of hospitality and prejudice or discrimination against LGBT people, it is possible to perceive some incongruence in people's attitudes toward gender identity issues. Some resistance and even prejudiced attitudes towards this market stand out, particularly among male residents and those with basic education. The results indicate that the lower the level of schooling, the greater the prejudice and discrimination towards people from the LGBT community.

Admittedly, markedly homophobic attitudes are not observed in the present study. On the contrary, the local community surveyed, when confronted with homophobic statements, show, in general, feelings of repudiation. The majority did not agree at all with the repulsion towards homosexual behaviour, their eventual isolation, and their non-existence with the local community and other tourists. However, when confronted with the statements "tourists should repress their sexual orientation," and those who "cross-dress are not welcome in the North," the respondents did not strongly disagreed.

Table 2: Residents' behaviours and attitude to the LGBT Market/Tourism

Behaviours and attitude to the LGBT Market/Tourism		**Likert Scale (1-5 points)**	
		μ	**σ**
Prejudice / sexual discrimination	LGBT tourists should be separated from other tourists	1,48	0,864
	LGBT tourists should not socialise with the local community	1,49	0,874
	I avoid talking to gays, lesbians, bisexuals and transsexuals	1,46	0,853
	Homosexual behaviour is something that is simply wrong and should not be exposed in society	1,57	0,914
	Tourists visiting Porto and Northern Portugal should repress their sexual orientation	1,93	1,057
	Transvestite tourists are not welcome in the northern region	2,26	1,107
Hospitality	The "people of the North" are a very hospitable people. This hospitality also applies to LGBT tourists	3,54	0,986
	The local community in the Norte region is willing to maintain a relationship with LGBT tourists	3,49	0,868
	I live in an LGBT-friendly city or region (acceptance, non-discrimination and public spaces for the LGBT market)	3,07	1,020
	Discrimination against Lesbians, Gays, Bisexuals and Transsexuals is no longer a problem in the Northern Region of Portugal	2,96	1,024
	The northern region is safe for LGBT tourists	3,58	0,988
LGBT-friendly destination	The region should have more information specifically for the LGBT market	3,76	1,015
	The region should have more spaces and establishments specifically for the LGBT market	3,42	1,108
	The advances made in civil rights for gays and lesbians, namely marriage and adoption, improve Portugal's image in the world.	3,79	0,995
	Open-mindedness, tolerance and acceptance of LGBT tourists are important factors in choosing a destination for this market	4,14	0,876
	I would go to a bar frequented mostly by LGBT people (gays, lesbians, bisexuals and transsexuals) without any problem.	3,87	1,137
	The advances made in civil rights for gays and lesbians have generally improved society as a whole.	3,79	0,973
Positive impacts of LGBT Tourism in the region	Improves diversity in the region	3,54	0,963
	Develops local infrastructure and other facilities	3,38	0,982
	Preserves local heritage	3,23	0,944
	Improves public services, health and others	3,21	0,929
	Increases leisure alternatives	3,51	0,981
	Increases cultural diversity	3,68	0,951
	Increases employment	3,29	0,959
	Improves people's quality of life	3,22	0,921
Negative impacts of LGBT Tourism in the region	Increases violence and crime	1,91	0,946
	Increases drug consumption/trafficking	1,98	0,977
	Increases prostitution	2,00	1,017
	A loss of cultural identity in the region	2,03	0,919
	Increase conflicts between LGBT tourists and residents	2,12	0,993

“People from the North” are by nature hospitable people; they have a genuine interest in meeting people, and other cultures, and in relating to each other. The hospitality of the local community is undoubtedly a competitive advantage for tourism in the region. The surveyed residents of the Northern region of Portugal provide these qualities. They show, in general, a spirit of hospitality and attitudes that reflect pro-diversity ideals and acceptance and valuation of citizenship and rights of LGBT people. However, there is still some prejudice and hesitations due to gender expressions or behaviours seen as non-standard, especially by males and those with lower levels of education. Therefore, there is still some preparatory work to be done, and all agents involved in the market and respective destination will have to make a concerted effort to make the slight resistance identified, basically linked to a lack of definition of opinion or interest, to the side of the "concordant".

As expressed by the local population in the analysis of their attitudes toward the LGBT market and the impacts of LGBT tourism in the region, there are many undecided people, especially regarding the positive impacts. Most indeed have a positive attitude defending that this activity contributes to the increase of diversity and leisure alternatives, and they recognize the benefits it can bring in the development of infrastructures and other facilities for the locals themselves. The negative impacts are not expressive. However, in specific themes, namely improving the quality of life, employment, public services, and heritage preservation, there is still some hesitation.

Taking this data into account, the first step was to understand how demographic variables may or may not be important concerning these factors. Thus, only in the residents' educational level was it found that the higher the level of education of the residents, the more positive they are about LGBT tourism and the less insecure they are about the negative impacts that could come from it (Silva & Vareiro, 2021a).

Secondly, and to aggregate the information collected, we tried to group residents according to their common perceptions regarding the impacts of LGBT tourism on the region (Silva & Vareiro, 2021b).

The result fell into three groups: Undecided, Enthusiasts, and Sceptics. The Indecisive, considered the youngest of the groups, with lower levels of education and where the male gender is more notable (regardless of the predominance of females in all groups), show the greatest share of indifference or lack of knowledge regarding LGBT tourism and the impacts that may arise, perhaps due to lack of knowledge of the area or indifference, resistance and/or prejudice towards the market.

Enthusiasts, predominantly aged between 36 and 50, female and with higher education levels, are the most representative group and the most optimistic about LGBT tourism in the region. They are also the most hospitable and have the slightest fear of difference. On the contrary, they consider that LGBT tourism can benefit the region and agree that this niche market should be targeted.

The Sceptics, the oldest group and the least apologist for LGBT tourism, although not agreeing with the negative impacts, reject the positive impacts attributed to LGBT tourism and the investment in this niche of tourism.

5. Conclusion

The success of the tourism bet is based on realistic, efficient, and transversal planning, ensuring the respect and integrity of the community, the tourists, and the destination itself. In this context, if Porto e Norte de Portugal intends to invest in the LGBT market, the conclusions drawn justify the need to adopt intelligent planning and policies that ensure the success of LGBT tourism in the region. In this assumption, as a diagnostic assessment for the planning of LGBT tourism in Northern Portugal, it was deemed pertinent to reflect upon and understand the behaviour and profile of the LGBT tourist followed by an empirical analysis of the hotelier's and local community's perceptions and attitudes towards the LGBT market.

The literature review contributes to understanding the market, its potential, and the socio-economic benefits for destinations that declare themselves LGBT-friendly. Fundamentally, we found that the LGBT tourist is a frequent traveller, with purchasing power, and when choosing a destination, they value safety, freedom, acceptance, and respect for LGBT status.

In Portugal, it is notorious the evolution in the acceptance of people from the LGBT community within the Portuguese society and the conquest of their civil rights (e.g., Law no. 9/2010 of 31 May; Law no. 2/2016 of 29 February). However, there are still some abusive situations toward the LGBT community that must be eradicated.

Through the studies applied to hotel front office professionals and the local community in the North region, we were able to objectively identify their weaknesses regarding LGBT tourism, namely in terms of discrimination and prejudice towards the market. In the Northern region's hotels, discriminatory behaviours towards LGBT people, expressed by some front office professionals' denial of accommodation availability, were observed. However, it can be seen that in the answers, there was no correlation between the sexual orientation and gender identity of the customers, either regarding the time and quality of communication or the presence of less friendly, affectionate, attentive, and hospitable answers. As for the Local community surveyed, in general, they consider that the region has the necessary conditions to attract the LGBT market and that the advances achieved concerning the rights of people from the LGBT community improve the whole society and, in particular, Portugal's image in the world. They identify the hospitality of its population, its historical and cultural heritage, and nature and rural spaces as competitive advantages for tourism in the region and encourage investment in LGBT tourism. Recognizing their hospitality and attitudes towards diversity and acceptance of citizenship and LGBT rights, there is still some reluctance and discrimination concerning sexual orientation and gender identity, more expressive in male residents and basic education.

Following these assumptions, one can conclude that, yes, Porto e Norte de Portugal can and should invest in LGBT tourism, but this investment requires integrated and collaborative planning and management with all stakeholders.

This research presents some limitations, especially in terms of its scope. Firstly, the application of the empirical study delimited to the hotel industry and the local community circumscribes the results to the extent that it is not possible to perceive the attitudes and behaviours of all those involved in tourism. Secondly, there are some limitations concerning the sample regarding categories, gender, age, and educational attainment. Regarding possible future research lines, it is considered pertinent to consider an analysis of all the destination's stakeholders that would allow for the evaluation of the results of their perception in totality. It is also worth highlighting the need to extend the studies on this subject to the whole Portuguese territory, not only in terms of stakeholder perception and attitude analysis but also in conducting research on LGBT tourist and on the perception of the local LGBT community. Finally, one of the research lines that assumes importance in future work is the analytical comparison of several case studies that determine the evolution of destinations.

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Package Label Redesign

Spices Case-Study

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Abstract

The requirements towards new packaging and consumer expectations with food packages are systematically growing. Packaging is an essential element in modern trade in goods, which guarantees preserving the quality of food products, but simultaneously is an influential communicator in a dynamic market environment where consumers often only make their final purchasing decision when they are inside a retail setting. A Case-Based Learning (CBL) method was applied with students of Design and Marketing of New Products from the Marketing undergraduate degree of Leiria Polytechnique to develop the new package label for a company that operated in Food & Beverage (F&B) industry and needed to change its spice package label. The students achieved the goals proposed by the company and they reported to have had a useful experience, based on a real case study developed in the academia. However, no formal quality evaluation was performed by the professors, a recommendation for future scholars aiming to apply the CBL method in their classes.

Keywords: Packaging; Marketing communication; Redesign; Label; Case-based learning

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1. Introduction

Packaging plays a key role by protecting packed products against external conditions, affecting the quality and health safety of food products, making transportation, storage, and dispensing of products easier (Barska, 2017). It is also an essential element in marketing communication in relation to the customer. A package must communicate the content of the product and how it can be used, together with other required information. Proper labelling should include information about the content and other premium data (Wyrwa, 2012).

The choice of materials is an important issue for engineers and designers, as they need to balance the main functions of the packages (functional and communicational). Also, consumers have been increasingly more conscious regarding environmental issues and, after unpacking, waste is generated with a significant impact on the environment (Kozik, 2020). Being green and acting in an environmentally friendly way has become an inevitability and manufacturers have been pressured to adapt and they started to develop new packaging solutions (Culiberg & Elgaaied-Gambier, 2015). Packaging and innovation go hand in hand, as new packaging may support differentiation. Sometimes a moderate change in the design of the packaging may be a very good solution to draw attention and lead to a favourable perception of a product (Schoormans and Robben, 1997).

To test the impact of the redesign of a package in the context of a classroom and allow students to develop specific competencies and learn with a hands-on approach, we approached a specific company, called 100% Titular. The company was part of Food & Beverage (F&B) industry and needed to change its spice package label. Company representatives provided part of the requirements for the case and the professors added more requirements based on their academic knowledge.

We involved the students enrolled in the course of Design and Marketing of New Products, part of the Bachelor's in Marketing of Leiria Polytechnique and applied a Case-Based Learning (CBL) method to develop the new package label. CBL is a methodology that engages students in discussion of specific situations, typically real-world examples. It is learner-centred and involves intense interaction between the participants (Queen's University Centre for Teaching and Learning, 2023).

This paper is organized as follows. After a literature review focused on marketing communication, marketing strategy and packaging, we present the methodology used to implement CBL. Next, we present the results obtained, we discuss the results and end with conclusions.

2. Literature Review

2.1. Marketing Communication and Packaging

In today's competitive food retailing environment, consumers are exposed to thousands of messages on packages and merchandising (Nancarrow, Wright & Brace, 1998). Therefore, at the Point-of-Purchase (PoP), products available on the shop shelves compete to attract favourable attention and be selected by the clients (Tonder & Mulder, 2015).

Packaging is a powerful vehicle at the PoP and an important tool to communicate persuasive messages. For that reason, it is sometimes referred to as the 'silent salesman' that makes the final sales pitch, seals the commitment, and gets itself placed in the shopping trolley (Rettie and Brewer, 2000, Olaleye, 2017). Or, as Court, Elzinga, Mulder and Vetvik (2009) mention, the package has an important influence in a dynamic market environment where consumers often make their final purchasing decision when they are in front of the shelf.

Ksenia (2013) and Naidoo (2003) reinforce this idea and mention that approximately 70% of the purchasing decisions are made at the PoP, in a context of increased self-service at the point-of-sale. Boon and colleagues (2010) also refer that Front-of-Package (FoP) labels improve consumer understanding and perceptions and argues that concise nutritional information on a food product may influence purchase intentions (Khandpur et al, 2018). So, the role of packaging as a communication tool has increasingly become more important (Kotler & Keller, 2015).

Luca (2006) states in her study that packaging presents elements with essentially informative and communicative power as well: words, images, colours, shapes, among others, which communicate to the consumer in various ways and places, before and after the shopping experience (see Table 1). Underwood and Klein (2002) argue that the package picture has a strong and positive effect on attitudes toward the package itself.

In the specific case of food, the packaging must be in line with food safety requirements to avoid serious health consequences for consumers. Food packaging makes use of a variety of substances, including dyes for printing colourful labels, and glues and adhesives for keeping packaging closed. Some materials e.g. plastic, polyethene, or styrofoam, can become toxic when heated, irradiated or during the deterioration process or transfer unsafe non-food substances into the food. To protect consumers, relevant authorities certify all food packaging materials after submitting them to rigorous testing protocols (Gupta & Dudeja, 2016).

Table 1 – Informational features of packaging

Type of Elements	Main Characteristics	Attributes: First level	Attributes: Second level
Package	Shape	Size Manageability Storability Cleanability Reusability Dimensional Impression Service Portions	n.a.
	Materials	Durability Recyclability Pleasantness	
Labelling	Textual Elements	Names	Company Name Product Line Name of Market Sector Product Name Name of Variant
		Information	Instruction and Suggested Uses Ingredients Nutritional Information Preview of Contents History/Product Description Service Information
		Recall and Repetition	New Products Advertising Slogans Testimonials Line Extension Special Offers
		Information Required by Law	Alpha-Numeric Codes Production and Expiration Dates Weights and Measures Plant and Producer Specific Sectorial Information
	Iconic Elements	Lettering	Logos Functional Text Persuasive Text
		Background	Unvarying Colour Decorative Pattern Transparent
		Images	Product Representations Secondary Images Informative and Graphic Images

Source: Adapted from Luca (2006)

2.2. Packaging and Marketing Strategy

In marketing, the packaging functions can be grouped into two categories: 1) logistical, operative, or technical; and 2) marketing and communication. Packaging design needs to consider both categories.

The first packaging function protects the product during its movement through distribution channels, from production to disposal and the conservation and safe product (Mohamed, et al, 2021). Innovation has played a role in the design of many new packages that are re-sealable, tamperproof, and more convenient to use e.g., for take-away food. These improvements led to packages that are easy to hold, easy to open or more convenient for storage at home (Rundh, 2012).

For communication purposes, packaging is a facilitator of brand and product recognition, and it needs to attract and keep the customer's attention (Schoormans and Robben, 1997). It is a tool to differentiate products from others (Estiri et al., 2010) and it works better when improving both the aesthetic (i.e., shape and size, material, colour, text and graphics) and the functional components of a package (Rundh, 2012).

Additionally, sustainability requirements need to be considered in order to meet consumers' green consciousness. Packages made of environmentally friendly materials, that are space saving (which subsequently reduces transporting costs and carbon emissions), or that include eco-conscious information may be perceived as more sustainable (Lee et al., 2020) and valued by consumers. To develop sustainable packaging, eight aspects should be considered (Sustainable Packaging Coalition, 2011):

- Being beneficial, safe & healthy for individuals and communities throughout its life cycle;
- Meeting market criteria for performance and cost;
- Being sourced, manufactured, transported, and recycled using renewable energy;
- Optimizing the use of renewable or recycled source materials;
- Being manufactured using clean production technologies and best practices;
- Being made from materials healthy throughout the life cycle;
- Being physically designed to optimize materials and energy; and finally,
- Being effectively recovered and utilized in biological and/or industrial closed loop cycles.

Aware of the fact that the package design has become increasingly important to a brand's success (Shimp and Andrews (2014), manufacturers have been pressured to adapt the industry. Packaging made of conventional materials, e.g. plastics, paper, glass, and metal, started to be used in novel ways to meet the sustainability requirements (Culiberg & Elgaaied-Gambier, 2015) after a process of life cycle analysis and improvement of the way they are produced, used or disposed (Kozik, 2020, Sustainable Packaging Coalition (2019)

Manufacturers may also go beyond the traditional packaging functions and adopt a multifaceted approach over packaging design, incorporating e.g., innovative biodegradable packaging materials and renewable raw materials, while focusing on the need to differentiate on the market and duly communicate with customers.

3. Methodology

We used the CBL methodology. This approach is learner-centred and involves intense interaction between participants as they build their knowledge and work together in groups to examine the case. The instructor plays the role of a facilitator, while the students collaboratively analyse, address problems and solve questions that have more than one correct answer (Queen's University Centre for Teaching and Learning, 2023).

The case was developed in the context of the course of Design and Marketing of New Products, part of the Bachelor's in Marketing of Leiria Polytechnique and supervised by two professors. The main goal was to solve a specific case challenge related to the F&B market, presented by the company 100% Titular.

The company had its headquarters in Aruil, Portugal, was created in 2008 and operated in F&B industry, with a focus on trading food products. The main clients are big retailers, e.g., Auchan, Aldi, El Corte Inglês, ELeclerc, Spar, Suporcel, Pomar da Rosa, Mini Preço and Pingo Doce.

The company wanted to redesign their spices packages labels (see Figure 1) and provided students and professors the following instructions:

- Change the design of spice package label and align with the new package of cherry tomato (see Figure 2).
- The label had to respect specific dimensions (see Figure 3).
- The label should communicate firstly the brand.
- The label should communicate secondly the product (name and image).
- All line of spices should be consistent in terms of packages label.

The professors added two new instructions:

- Use sustainable materials.
- Design the exhibitor to show the products in the point of sale.

4. Results

The students worked for two months (March and April of 2022) to design a new package label (Figure 4), according to the requirements of the client and the sustainability issues. The brand identity was guaranteed, and the logo emphasised it. The white space was covered, and other changes that were made the package more attractive to the consumer.

According to the students, the inspiration for the new label, with a classic design came from the "old times, when the seeds of the plants were saved in paper to the next harvest". In terms of sustainability, the material used is kraft instead of plastic.

About the colours, the CMYK system was chosen. Each label has five colours: light green for brand logo, dark green for slogan or tagline, black for name of the product or other text, colour spot – space for graphics and texts about the product and dark brown for the sketches in the wallpaper (Figure 5).

Figure 1 – Old package

Source: 100% Titular

Figure 2 – Actual package for cherry tomato with new communication strategy

Source: 100% Titular

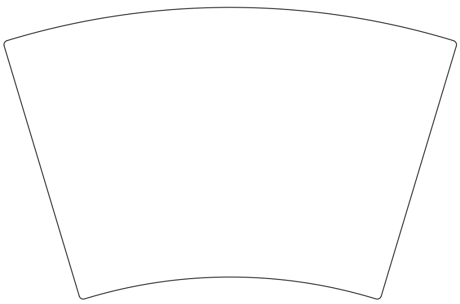

Figure 3 – Cherry tomato cutting shape

Source: 100% Titular

Figure 4 – New package label cutting shape

Source: Authors elaboration

Figure 5 – Package design: before and after

Source: Authors elaboration

The graphics (texts and images) show a classical and craftsmanship visual. The type of letter Nexa Rust Sans Black was selected to write the name of the product in order to increase readability at a bigger distance. Each spice was associated to a specific colour to identify the product, ensuring the design was consistent (Figure 6).

The cap was prepared to be produced in paper. Its design was aligned with the package label in terms of colours, graphics, and texts, so as to better identify the product (Figure 7).

The exhibitor created for the retail shop proposed is illustrated in Figure 8. The simulation of the display and the communication was innovative and contrasted with the classic inspiration of the new packaging for the product.

Figure 6 – Line of new proposed labels for spices packages

Source: Authors elaboration

Figure 7 – Line of new proposed caps for spices packages

Source: Authors elaboration

Students created a new package considering the several requirements imposed by the client and the professors. They agreed that the brand needed a new package and image.

The shape of the new package was aligned with the tomato cherry package, respecting the first requirement posed by the company. The second requirement was also respected: the cutting shape was in line with what the company demanded.

For the third and fourth requirements and consistent with the choice of materials, the new package proposed, was aligned with the communication required. With textual elements and using the colour spot, the brand name was emphasized, and the name of the product with the graphics came second. The new package followed the orientations of Khandpur and colleagues (2018) and included a label with a good understanding and concise information for the consumer.

The visual path of package label promotes the company's slogan "*100% do sabor, sempre*" – "*100% flavour, always*". Next, a lower-sized black spot with the text stands out "*agora numa embalagem com menos plástico*" – "*now, with a packaging with less plastic*". The latter communicates sustainability measures as referred by the Sustainable Packaging Coalition (2011).

The last requirement of the client was also fulfilled. All packages' labels of spices and condiments were consistent with the marketing communication as well as the caps. This uniformization considered the colours, shapes, graphics, and layouts, all key informative and communication elements as stated by Luca (2006).

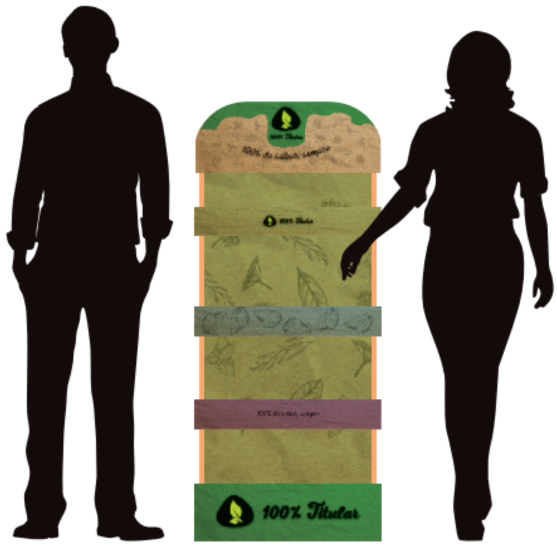

Figure 8 – Exhibitor design for the retail shop

Source: Authors elaboration

5. Final Considerations

Packaging is an essential element in marketing communication, it facilitates brand and product recognition and should be developed with sustainability concerns. The shape (triangular cutting shape) and material (kraft) of the new packaging address Sustainable Packaging Coalition (2011)'s concerns. However, the iconic elements of the package label (Luca, 2006) could be improved in terms of background attributes (colour and pattern). Each package proposal has five colours, yet it could be reduced to four or even three colours in total, as the more colours a product has, the less sustainable it is.

The new proposal has the same package shape and size as the package of cherry tomato, optimising both the production and logistics of the company. Also, the new proposed package can protect the packed products against external conditions as required.

The new line of proposed labels for the spice was influenced in both shape and dimensions of the cherry tomato package. The first level label communicates the brand, and the second level label the product name. The different spices have different colours, to identify and distinguish the product and group them into a product line. Furthermore, the exhibitor created for the retail shop should be rethought, as its decoration (pattern background) could overshadow the communication of the packaging label itself to the consumer.

So, from the perspective of the requirements presented by the company and by the professors, the new packaging proposal fulfils the initial instructions.

From the perspective of the teaching and learning innovation, the usage of CBL methodology proved very effective to achieve the initial goals and respond to the requirements from the company and the professors. Student performance was assessed based on their participation in discussions, presentations, research and work results and students achieved the learning objectives of the course of Design and Marketing of New Products, as well as developed technical competencies and soft-skills. The students provided informal feedback to their professors, indicating they truly appreciated this challenge and suggested that the CBL method should continue to be applied in the incoming years.

We note though that the professors did not make any formal quality evaluation assessment, which is a limitation of our study. Several authors recommend evaluating CBL. For instance, Schmidt and Moust (1995) and Das, Das, Rai and Kumar (2021) used a summative questionnaire in their research, with closed questions. Also, Saur-Amaral, Aragonez and Filipe (2023) performed a quality evaluation assessment at the end of the project they implemented in two higher education courses, combining a questionnaire with closed questions and an open essay reflection. This allowed capturing different perspectives from students with different personalities and learning experiences, in a structured way.

We recommend future scholars to duly plan to evaluate the active teaching method of CBL at the end of their course. Quality evaluation is key to measure and discuss the student's perception between the two different teaching methods (traditional and active), the development of concepts based on CBL, to understand the content acquirement and how students apply the knowledge to the case study and to other future scenarios (Das et al., 2021), and it may serve as reference to compare CBL application in different years or with different groups of students.

To sum up, this research allowed a better understanding of the relationship between the industry and academy, and how knowledge and experience can be put together in a win-win situation: the company benefits by receiving different innovative ideas for new packaging labels, while the students understand how the real world, the market, works.

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Innovative Approaches to Teaching and Learning: Project Based Learning (PBL) Practices for Good

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Abstract

The main goal of this paper is to describe a specific teaching-learning project implemented in two higher education courses – Bachelor in Marketing and Master in Competitiveness and Business Development, offered at a higher education institution. The project integrated Project Based Learning (PBL) methodologies and authentic learning, supported by technology, with Sustainable Development Goals (SDGs), studying real companies from different industries, and aiming to improve the quality of the learning experience, students' motivation and academic success. A total of 300 students were involved in the first semester of the year 2022/2023.

The idea of sustainable cocreation was at the base of this pedagogical innovation project, so that students may become aware and assume responsibility on the impact of marketing, strategy and competitiveness decisions in the contemporary society. Students were challenged to include in their works a proposal of actions that had positive impact and contributed to the SDGs defined by the United Nations and to reflect and measure the potential impact of these actions at the level of the community.

From an operational perspective, students developed different activities in their academic works, in four different curricular units, in line with the educational level and syllabus of each curricular unit, always related to real companies from different industries and supported by different technologies, using different immersive learning experiences where students could combine authentic learning and SDGs analysis.

Keywords: Authentic Learning, Pedagogical Innovation, PBL, SDGs, Marketing education

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1. Introduction

Since the adoption of the 17 Sustainable Development Goals (SDGs) created by the United Nations in 2015, as part of the 2030 Agenda for Sustainable Development which set out a 15-year plan to achieve the Goals, efforts emerged from individual and collective people for sustainable development, and Higher Education Institutions (HEI) should have an active role raising awareness and educating their students to this reality (Chaleta et al., 2021; Zamora-Polo & Sánchez-Martín, 2019).

Thus, two research questions arise: (i) is it possible develop innovative approaches to teaching and learning in higher education integrating the 17 SDGs? (ii) what are the benefits and pitfalls of these approaches?

In this context, an innovative pedagogical project titled Higher Education for Good was developed at the University of Aveiro involving students from four curricular units of two higher education courses: Bachelor in Marketing and Master in Competitiveness and Business Development. It involved a total of 300 students.

The project aimed to create a specific teaching-learning context, integrating PBL methodologies and authentic learning, supported by technology, with Sustainable Development Goals (SDGs). The students were challenged to study real companies from different industries and aimed to improve the quality of the learning experience, students' motivation and academic success.

The idea of sustainable cocreation was at the base of this pedagogical innovation project, so that students may become aware and assume responsibility on the impact of marketing, strategy and competitiveness decisions in the contemporary society. Students were challenged to include in their works a proposal of actions that had positive impact and contributed to the SDGs defined by the United Nations and to reflect and measure the potential impact of these actions at the level of the community. The project included different technology to support the teaching and learning process.

The current paper describes this innovative pedagogical project that was implemented during the 1st semester of the 2022/2023 academic year.

This paper as structured as follow: after this introduction, it presents the literature review of the main concepts and context that supported the implementation of the innovative pedagogical project. Next, it describes the innovative approaches to teaching and learning in the curricular units involved in the pedagogical project "Higher Education for Good", as well as the benefits and pitfalls. The paper ends with final considerations.

2. Literature Review

2.1. PBL and Authentic Learning: Innovative Approaches to Teaching and Learning

In current academic and professional context, it is widely accepted that hard skills obtained with a solid formation in HEI are not enough to face real word challenges (Aničić, Divjak, & Arbanas, 2016). Thus, soft skills and other skills of students are vital to be developed in courses of higher education and complement each other (Gibb, 2014; Tadjer et al., 2022).

In this sense, innovative teaching methodologies have been implemented in HEI courses (e.g., project-based learning (PBL), problem-based learning, challenged-project learning (CBL), authentic learning, learning by doing) and several benefits have been found by academic literature, such as critical thinking of students, team-work skills, problem solving, amongst others (Anazifa & Djukri, 2017; Deep, Salleh, & Othman, 2019; Tadjer et al., 2022).

Among the new methodologies and innovative teaching and learning practices, project-based learning (PBL) and authentic learning are widely used (Bell, 2010; Lombardi & Oblinger, 2007; Musa et al., 2012; Nab et al., 2010).

Project-Based Learning (PBL) is an approach that places student at the center of learning process and the teacher as a facilitator (Bell, 2010), while authentic learning places students in an environment close to real-work and real-life problems (Nab et al., 2010).

2.2 Technology-Supported Approaches to Teaching and Learning

In the last decade, the gamified-based learning has been increasingly used in higher education, in different scientific areas. Different scholars have been seeking to understand what factors are responsible for the success and, also, what are the barriers that hinder the successful implementation of such approaches (Aragonez, Saur-Amaral & Gouveia, 2021).

Sitthiworacart and colleagues (2022) defend that the usage of technology as a support for learning will offer, in principle, the opportunity for a more effective learning, yet available technologies are still very much focused on "traditional" learning approaches. According to Cevikvas e Kaiser (2022), when technology is used in the context of customized learning, students are stimulated and their cognitive processed are more easily activated.

Following the same line of thinking, Araújo and colleagues (2023) point out that technology supports different aspects in our daily living, including education, and is considered a tool that connects students and teachers in the knowledge dissemination process. This may allow to raise the interest of students and promote the development of learning processes.

For teachers, the use of technologies allows a higher student involvement, leading to an increased level of motivation. Different technological usages can be promoted, from the design of the learning space to activities that promote active learning or student support (Sitthiworachart et al., 2022).

2.3 Sustainable Development Goals (SDGs) in Teaching and Learning

The Sustainable Development Goals (SDGs) are a set of 17 goals created by the United Nations in order to sensibilize the different public and private actors to the need of sustainable action (Kopnina, 2020; United Nations). Higher Education teachers and institutions have been including the SDGs in their learning programs, to foster students' awareness about the environment and to develop new skills and competences in this field (Cottafava et al., 2019; Kopnina, 2020; Leal, 2021).

Teaching SDGs requires competencies of systemic thinking and involvement of different partners, being based on reflection and self-awareness of the participating students and teachers (Cottafava et al., 2019). It seems to be a more complex endeavor than regular teaching.

Walter Leal (2021) emphasizes that sustainable development may be applied and taught in different ways, with different teaching methods, and points out four learning methods that can be used in non-conventional contexts:

- Lifelong learning – helps combining professional and personal interests, specifically applied to working adults, and promotes citizenship;
- Transformative learning – promotes mentality changes and influences future actions based on a new information / knowledge acquired, and promotes citizenship;
- Experience-based learning – is based on emotions and active participation;
- Indigenous knowledge-based learning – promotes intergenerational values and a sense of community participation.

Cottafava and colleagues (2019) point out, as well, the importance of transformative learning and they value, equally, the experience component, which require a change from traditional teaching practices and a focus on the local community and real projects that help involve students and allow them to feel empowered and accountable for any change arising from their learning projects. On her side, Helen Kopnina (2020) refers to the importance of ecological citizenship education, that "*speaks of sustainability of all life on earth*", indigenous education, similar to Walter Leal, and empowerment education, that focuses on the weaker fringes of the populations and can be used to empower them.

3. The Innovative Pedagogical Project Implemented at University of Aveiro

3.1 Overall Description of the Project

The project we implemented at University of Aveiro, in the first semester of 2022-2023 was sponsored by the Rectorship of the university, being one of the four projects selected to be funded and distinguished as Innovative Pedagogical Project. It was promoted by three teachers, all course directors in one of the 20 departments of the university.

The project had as main goal to promote PBL and authentic learning practices, together with Sustainable Development Goals (SDGs), using real contact with companies, whenever possible, and technology to support learning, to improve the quality of the learning and the motivation and academic success of involved students.

The students involved in the first semester were from the Bachelor of Marketing (second and third year) and the Master of Competitiveness and Business Development (first year), in a total of 300 students. Table 1 summarizes the curricular units and courses involved in this Innovative Pedagogical Project.

Table 1 - Curricular units and courses involved in the Innovative Pedagogical Project

Curricular Unit	Year and Degree	Type	Number of students
Strategic Management	2nd year | Bachelor of Marketing	Mandatory	150
Marketing and Business Planning	3rd year | Bachelor of Marketing	Mandatory	60
Innovation and Entrepreneurship	3rd year | Bachelor of Marketing	Elective	50
International Marketing, Strategy and Competitiveness	1st year | Master of Competitiveness and Business Development	Mandatory	40

Source: Own elaboration

This innovation pedagogical project has as goals, for the second semester of the 2022/2023 academic year: 1) participation of 60 students of 1st year of Bachelor in Marketing; (2) participation of 40 students of Master in Marketing in the project involving 5 curricular units.

3.3 Innovative Project Implementation

Project-based learning (PBL), as previously mentioned, focuses on learning using projects, and it is an effective way to bring more dynamics in traditional classrooms and get students more involved (Anazifa & Djukri, 2017; Bell, 2010; Musa et al., 2012).

Different PBL approaches have been implemented in the disciplines involved in the project, combined with technology support and gamification.

For instance, in International Marketing, Strategy and Competitiveness, students developed interdisciplinary projects with Digital Economy and Commerce, which counted for their assessment, using real companies and real challenges for new markets. Similar approaches have been used in Strategic Management, Innovation and Entrepreneurship and in Marketing and Business Planning, where students developed strategic and marketing plans, including SDG diagnostic and SDG specific goals, focusing on a company at their choice.

Moreover, in Innovation and Entrepreneurship students developed business models for companies, using the Business Model Canvas where SDGs and social & developmental costs and revenues were considered, and used LEGO Serious Play approach (see Figure 1). In all curricular units involved in this project students worked with real companies (see Figure 2).

Figure 1. LEGO Serious Play application in Innovation and Entrepreneurship class

Figure 2. Final interdisciplinary project presentations: Students and the teachers of two curricular units

The close relationship with the industry, either to solve problems previously identified by the companies, or to share experience from real business world, brought to the class of International Marketing, Strategy and Competitiveness, practitioners from marketing and international business fields, from companies Chaise Long (furniture) e Strongstep (services) (see Figure 3). In Strategic Management, students had the opportunity to interact with the Area Manager of Sanitana, and discover how international marketing is implemented in that company (see Figure 4). These activities were considered particularly enriching as students had the opportunity to understand how the theoretical content applies in real life situations.

Figure 3. Classes with the CEO and Marketing Director of Chaise Long and CEO of Strongstep.

Figure 4. Classes with the Area manager of Sanitana.

Classes took place in the special learning spaces (classrooms), but also in the outside environment, where students were challenges to develop different activities and present them in front of the colleagues and pass by people. The teacher used Letter Soups and other gamified tools developed using learning-support technologies (Figure 5).

Figure 5. Classes in the external environment of the campus

In the class of Strategic Management, students developed strategic management plans, working, once again, with real companies, in a similar approach followed in Marketing and Business Planning. Also, during the Project, students were invited to participate in a study visit where they had the opportunity to know PCI – Innovation and Science Park of the University of Aveiro and to interact with the related entrepreneurial ecosystem (see Figure 6).

Figure 6. Visit to the Innovation and Science Park

Technology offered multiple and varied activities to support learning, inside and outside class. In this project, technologies were used to involve students, gamifying the interaction (e.g. Kahoot!) and were part of the classes, in the technological new room available at the University of Aveiro, called SALT.

The SALT room was created with the main goal to promote pedagogical innovation at the University of Aveiro and provides flexible layouts, top-end technologies and promotes new ways of teaching and learning. Hybrid and collaborative learning are particularly well implemented in this space, which was used by teachers to create idea sharing opportunities, receive invited guests which were in another location, promote group work with tutorial support and presentations, while allowing students, as well, to relax and socialize with peers and teachers (see Figure 7 and Figure 8).

Videos were regularly used to showcase concepts, going below the traditional Powerpoint approach, and Moodle was used as learning platform, to share content (1.0 approach) but also to collect students' feedback via quizzes and forums, as well as to interact (2.0 approach).

Figure 7. Example of a class in SALT room

Figure 8. Example of a class in SALT room using gamification (Smart TV Screen)

Padlet was used to aggregate relevant information in Marketing and Business Planning, with very positive results (see Figure 9).

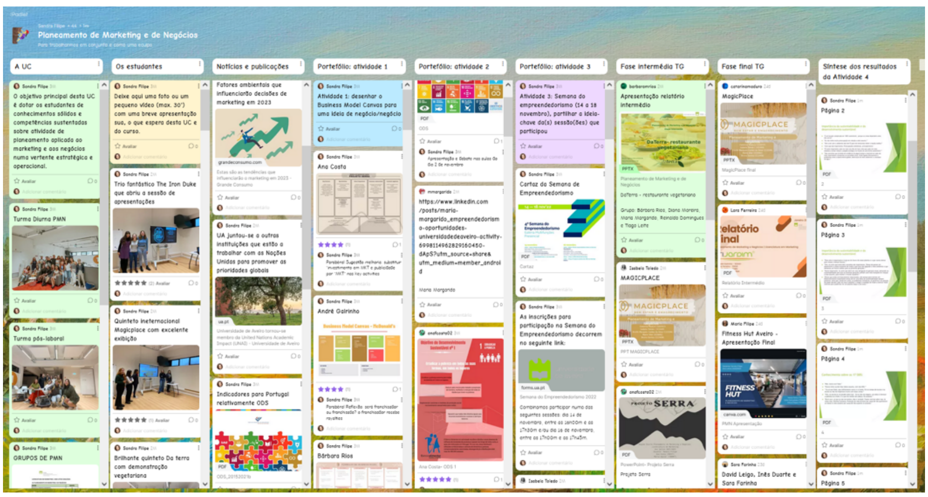

Figure 9. Padlet used in the Marketing and Business Planning class

It was the first time the teachers implemented the Sustainable Development Goals (SDGs) SDG framework in their classes. To ensure the approach was adequate, beside the technical learning and preparation, with material related to sustainability and SDG application in higher education, the teachers participated in a training session promoted at University of Aveiro, focused on the application of a specific tool developed to apply the SDG framework in a challenge-based learning.

In the different classes, students were exposed to SDG content, did practical exercises in class (e.g. describe SDGs and their relevance for companies and society) and were evaluated, in their group work or in the final exam. In Marketing and Business Plan, they even developed posters to present the SDGs (see Figure 10).

Figure 10. Examples of digital posters made by students on SDGs within the portfolio activities required in Marketing and Business Planning

3.3 Benefits and Pitfalls of the Project

Students had the opportunity to give feedback during the semester and at the end of it, as well. They evaluated very positively the experience – they appreciated the gamification approaches, the possibility to work with real challenged and interact with companies, the SALT room, as well as the possibility to apply the SDGs.

To our surprise, most students hadn't had the possibility to interact with the SDG framework before our classes and, at the end of the semester, they indicated they could have spent more time to understand and apply the framework, something we intend to include in next year's classes.

From teachers' perspective, the classes went quite well, with no particular drawbacks. In some situations, students complained about the work and showed lower resilience, which we associate to pandemics' effects. However, these situations were overcome with the tutorial support and possibility to develop the work in class time. There was also the need to adjust the approach, customizing it depending on the profile of each group.

From a very objective perspective, all classes obtained excellent results in the Quality Evaluation Assessment done by students at the end of the semester, and three of the courses were distinguished with the "Badge of Good Teaching Practices", which of course allowed the team to be recognized publicly for the capacity to implement this challenging project in the four different curricular units that were involved.

4. Final Considerations

Looking back to the experience and results obtained after the implementation of this project, called Higher Education for Good, one may say that it was a busy semester, with a lot of work, yet very satisfying at the end. Students got involved, were motivated and developed very interesting group and individual works.

The capacity to customize the learning approaches to the characteristics of each group of students was a particularly positive aspect, and one that is part of the teaching and learning practice of the involved teacher team.

The usage of technology to support learning happened in a natural, intuitive way, and was not a mean per se but a natural adaptation and variation of the teaching and learning process.

The SDG framework was implemented in an incipient, prototyping way, and there are aspects to be improved and deepened in the next editions of the same curricular units.

Regarding the implementation of the pedagogical innovation project, hereby described, it was successful and fulfilled the stipulated goals. More work awaits in the 2nd semester of the year 2022/2023, when six more curricular units, from three different courses, continue to be involved in the project.

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