

Public Relations and Startups in Andalusia. Analysis of their activity with a gender perspective

Relaciones Públicas y Startups en Andalucía. Análisis de su actividad con perspectiva de género

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Abstract

Effective PR management is considered essential in the first years of a startups' life, as it contributes to its viability and sustainability through strategic communication planning. The overall objective of this study⁴ is to analyze the startups landscape in Andalusia, Spain, with a special focus on the Public Relations (PR) strategies of women-led companies. Secondary objectives include: 1) To identify trends in female entrepreneurship in Andalusia and their relationship with PR; 2) To analyze the professional profile of women in PR roles in Andalusian startups; and 3) To propose communication strategies aimed at attracting clients and investors. The methodology combines a systematic literature review and a bibliometric analysis with data from Web of Science and VOSviewer, together with a questionnaire applied to 31 Andalusian startups. This approach allowed to analyse patterns in PR management and female representation. The findings show an increase in citations of articles on female entrepreneurship, highlighting the provinces of Malaga and Seville, which account for 61% of entrepreneurial initiatives in the region. Improving policies in these areas could boost businesses performance and the growth of new companies. In addition, the results reveal a

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growth in female leadership, although it still faces challenges, such as under-representation in senior positions. Key strategies include the use of social media, educational content and collaborations with influencers, which are essential to improve visibility and attract investors. This study highlights the need to strengthen PR in startups, professionalise its management and promote female leadership to foster sustainability and competitiveness in a dynamic environment.

Keywords: Public Relations, Strategic Communication, Startups, gender perspective, Women's entrepreneurship

Resumen

La gestión eficaz de las relaciones públicas se considera esencial en los primeros años de vida de una startups, ya que contribuye a su viabilidad y sostenibilidad a través de la planificación estratégica de la comunicación. El objetivo general de este estudio es analizar el panorama de las startups en Andalucía, España, con especial atención a las estrategias de Relaciones Públicas (RRPP) de las empresas lideradas por mujeres. Los objetivos secundarios incluyen: 1) Identificar las tendencias del emprendimiento femenino en Andalucía y su relación con las RRPP; 2) Analizar el perfil profesional de las mujeres que desempeñan funciones de RRPP en startups andaluzas; y 3) Proponer estrategias de comunicación orientadas a la captación de clientes e inversores. La metodología combina una revisión sistemática de la literatura y un análisis bibliométrico con datos de Web of Science y VOSviewer, junto con un cuestionario aplicado a 31 startups andaluzas. Este enfoque permitió analizar patrones en la gestión de las relaciones públicas y la representación femenina. Los resultados muestran un aumento de las citas de artículos sobre emprendimiento femenino, destacando las provincias de Málaga y Sevilla, que concentran el 61% de las iniciativas emprendedoras de la región. La mejora de las políticas en estas áreas podría impulsar el rendimiento empresarial y el crecimiento de nuevas empresas. Además, los resultados revelan un crecimiento del liderazgo femenino, aunque todavía se enfrenta a retos, como la infrarrepresentación en puestos de responsabilidad. Las estrategias clave incluyen el uso de las redes sociales, contenidos educativos y colaboraciones con personas influyentes, que son esenciales para mejorar la visibilidad y atraer inversores. Este estudio pone de manifiesto la necesidad de reforzar las relaciones públicas en las startups, profesionalizar su gestión y promover el liderazgo femenino para fomentar la sostenibilidad y la competitividad en un entorno dinámico.

Palabras clave: Relaciones públicas, Comunicación estratégica, Startups, perspectiva de género, Iniciativa empresarial de las mujeres

Summary

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Sumario

1. Introducción. 2. Marco teórico. 3. Metodología. 4. Resultados. 5. Discusión. 6. Conclusiones. 7. Referencias.

1. INTRODUCTION

Public Relations play a fundamental role in entrepreneurship, as they are in charge of developing and preserving relations between entities and the different groups of people who can influence their development (Romero Quintero, 2011). As Villena Alarcón (2013) points out, is the task of Public Relations to ensure the circulation of information among the individuals involved, to facilitate integration between personal and institutional achievements, and to establish spaces for information, participation and opinion among members. A decade later, researchers (Barroso & Tojar-Hurtado, 2023) continue to focus on the relevance of business management in Public Relations aimed at establishing and maintaining a two-way dialogue or conversation between companies and their stakeholders or target audiences.

According to Fernández Laviada et al., (2024) during 2022, approximately 6% of the Spanish adult population started a new business venture with less than three and a half years of existence, a figure that is similar to the percentage recorded in 2019. Moreover, the number of people with plans to start a business in the next three years reached 9.4%, marking the highest figure since 2012. This increase suggests a revitalisation in entrepreneurial activity similar to that observed after the 2008 financial crisis. Although the return to normality following the 2020 health crisis has reduced the fear of failure, it continues to be more prevalent among women. In 2022, 65% of men and 68% of women who participated in the entrepreneurial process did it without identifying clear business opportunities (Fernández Laviada et al., 2024).

The case of Andalusia is an interesting example of analysis, since in recent years the regional government has encouraged the creation of university spin-offs to promote innovation and economic development in the region (Mecha-López & Velasco-Gail, 2023). The first university spin-off in Andalusia was founded in 1995 by the University of Cordoba and until 2004 the number of companies founded remained low, but since then the number has increased rapidly (Cáceres Carrasco & Aceytuno, 2015). According to Fernández Laviada et al., (2024) , between 2011 and 2018, Andalusia experienced a continuous period of economic growth that exceeded the national average in Spain. In 2018, it reached its historical maximum with a growth of 8.8%. However, in recent years, the percentage of individuals involved in setting up a business in relation to the total population has decreased by 0.7 points, falling from 6.2% in 2003 to 5.5% in 2022 (Fernández Laviada et al., 2024).

This decline is similar over the same period in Spain as a whole. Despite this decline, Andalusia occupies second place nationally in terms of the percentage of the population that identifies opportunities for entrepreneurship, being only surpassed by the Canary Islands. It also stands out in terms of entrepreneurial skills and knowledge, as well as in personal interaction with entrepreneurs, occupying outstanding positions in both areas (Fernández Laviada et al., 2024).

However, a closer look reveals a slightly more worrying reality: women entrepreneurs have been particularly hard hit by the COVID-19 pandemic. According to the study by Crotti et al., (2021) it highlights that gender inequalities have increased, despite the fact that women have been the social group that has been most at the forefront of crisis management as 'essential'

workers. In the Spanish context, the OEE (2021) agrees with the above-mentioned reports and points out that the health crisis has had a slight but negative impact on female entrepreneurship, which has resulted in an increase in the gap between men and women in participation in entrepreneurial initiatives.

The study complements the vision stated by authors who have researched the relevance of accurate Public Relations management in their companies, especially those that are in their first years of life (Antwi et al., 2024; Coll-Rubio & Carbonell, 2024) and that are driven by women (Chen & Lee, 2022). Incipient businesses led by female entrepreneurs find in Public Relations valuable tools on whose efficient use may depend to a great extent the success of their positioning in the market and the engagement of their target audiences (Antwi et al., 2024; Chen & Lee, 2022).

2. THEORETICAL FRAMEWORK

Among the resources that are fundamental to the long-term viability and sustainability of startups, certain key agents within the entrepreneurial community, such as accelerators, incubators and science parks, stand out (Cáceres Carrasco & Aceytuno, 2015; Silva et al., 2018). According to Blanco Jiménez et al., (2021) these entities provide both tangible and intangible resources that help to overcome obstacles, and consider them essential in implementing, coordinating and articulating aspects of education and technology transfer activity, as well as promoting the culture of entrepreneurship. In the words of Galvão et al., (2019) startups use these networks to enhance their reputation and cope with their resource constraints. In this context, incubators play a prominent role by organising events that encourage the creation of partnerships and networks, either among the incubated startups themselves or with other external entities (Galvão et al., 2019).

For Wiesenberg et al., (2020), reputation represents one of the key challenges in strategic communication for startups, as it can significantly influence their differential success. In a wider perspective, Men et al., (2021) define strategic communication as the coordinated set of actions covering various disciplines, aimed at fulfilling an organisation's mission and achieving its objectives. Previously, Stacks et al., (2013) had already highlighted the importance of startups' relationships with different stakeholders, central to their Return on Expectations Index, which is composed of reputation, relationships, trust, credibility and security.

This business environment focuses mainly on the management and entrepreneurship of new companies, usually leaving issues such as Public Relations in the background (Men et al., 2021). However, new businesses have distinctive characteristics that require Public Relations (PR) practices and strategies to conform to specific guidelines (Men et al., 2017). These strategies can be implemented independently or in collaboration with other companies (Steiber & Alänge, 2021), in various 'co-creation' models between corporations (larger companies) and startups (Steiber & Alänge, 2021).

According to Jánošová et al., (2021) small and medium-sized enterprises, recognised as drivers of innovation, employment and social and regional integration, need to strengthen their communication strategies to reduce their vulnerability to changes in the business environment, to which they are particularly susceptible.

Aspects such as the speed of communication in new companies, which allows them to identify and take advantage of business opportunities and adapt to the environment quickly, are key elements in the successful implementation of startups (Picken, 2017). However, this relationship must be comprehensive, encompassing both external and internal aspects, and the small size of a startups does not automatically guarantee the proper functioning of communication channels (González-Cruz et al., 2020). In terms of external relations, PR strategies play a crucial role in recognising the target audience and determining the most appropriate way to communicate with them. This aspect stands out as one of the essential foundations for effective PR management (Men et al., 2017).

A key figure in startups organisational charts that has a positive influence on employee relations and behaviour is the CEO's communication (Men et al., 2021). According to Men et al., (2021) indicate that the DIRCOM's leadership communication in a startups supports the commitment of professionals to the company and, consequently, improves business performance, acting as a mediator in this process.

If we look at the figure of women as entrepreneurs, it is important to highlight that female entrepreneurship and communication are increasingly relevant topics and have experienced a notable growth in terms of scientific production in recent years (Rando-Cueto et al., 2022). The research scenario mirrors the current professional situation, where the proportion of women starting a business is increasing over the years (Cantet et al., 2024). In the 21-22 Study on Communication in Spain, based on a sample of 400 participants, it is evident that the communication profession in Spain is mostly made up of women, representing 56.5% of the total, compared to 43.5% of men (Asociación de Directivos de Comunicación (Dircom), 2022). However, as López Del Castillo Wilderbeek, (2022) points out, this data may differ when we examine the roles in leadership positions that women play in the field of communication. According to López del Castillo Wilderbeek (2022), despite the fact that female entrepreneurship has burst onto the professional communication scene, when analyzing the composition of the top management of organizations, women continue to be in the minority.

The general objective of the research will be to know the state of startups in Andalusia or which have their fiscal headquarters in this community by analysing the professional role of women and PR management in this field.

Secondly, the specific objectives would be:

- Identify the current situation of female entrepreneurship in Andalusia and its relationship in the area of Public Relations.
- Analyse the professional profile of women and what functions are performed in Public Relations tasks in Andalusian startups.

- Propose strategies that define the main communication channels that startups can manage to attract clients and investors.

3. METHODOLOGY

The main methodological strategies employed to achieve the aforementioned objectives include systematic review of the international scientific literature and bibliographic analysis on startups and emerging companies, focusing on PR and communication management, paying special attention to the role of women in these entities; and design, distribution and follow-up of a questionnaire addressed to the heads of startups in Andalusia, together with the analysis of the responses collected. the heads of startups in Andalusia, followed by the analysis of the responses collected.

In this study, the Web of Science (WoS) database is used as a reference source to compile most of the current bibliography related to the research topic and to select the most relevant in the scientific field.

Table 1 details the main searches carried out in the Web of Science (WoS) database for the research. The first search focused on Communication and Public Relations in startups and emerging companies, while the second was oriented towards gender analysis in the context of female entrepreneurship and Public Relations.

Table 1. Results of WoS searches

	Date	Search	Publications
1	02/4/2024	TS: (("startups*" OR "start-up*" OR "entrepreneur*") AND ("communication" OR "public relations")) Filter: Topic and Article	3,407
2	02/04/2024	TS: (("startups*" OR "start-up*" OR "entrepreneur*") AND ("communication" OR "public relations") AND ("wom*" OR "female")) Filter: Topic	245

Source: Own elaboration.

In the case of the first search, the attributes of the research are analysed using the data provided by the WoS platform. In order to go deeper into the specific analysis of the role of women, in the second search, the VOSviewer software will be used to go into the data and draw conclusions. Figure 1 shows the flow chart corresponding to the procedure followed for the selection of articles in both searches, according to the established conditions.

For the development of the questionnaire, a technique widely recognised in social research (Ruiz Olabuénaga, 2012) is used, which consists of incorporating closed and open questions, offering single and multiple response options, in line with the guidelines established in previous studies (Igartúa Perosanz, 2006; Macionis & Plummer, 2012; Malhotra, 2006; Neuendorf, 2017; Riffe et al., 2019). This questionnaire will be focused on the heads of startups or their respective departments, following the directory of the online platform 'Startupsxplore', which is endorsed by the Generalitat Valenciana and the Instituto Valenciano

de Competitividad Empresarial, and authorised by the Comisión Nacional del Mercado de Valores (CNMV). In addition, startups associated with incubators or accelerators in the Andalusia region will be included in order to increase the representativeness of the study and obtain more complete results.

The questionnaire sent by email to the startups managers consists of four blocks of questions:

- a) General description of the company: sector, size and location.
- b) Organisational chart of the company: Organisational structure and professional profiles.
- c) Communication and reputation: PR strategies, channels used and outsourcing of services.
- d) Respondent profile: Training and role within the company.

This instrument was essential to answer questions on how startups manage their PR and the role of women in these activities.

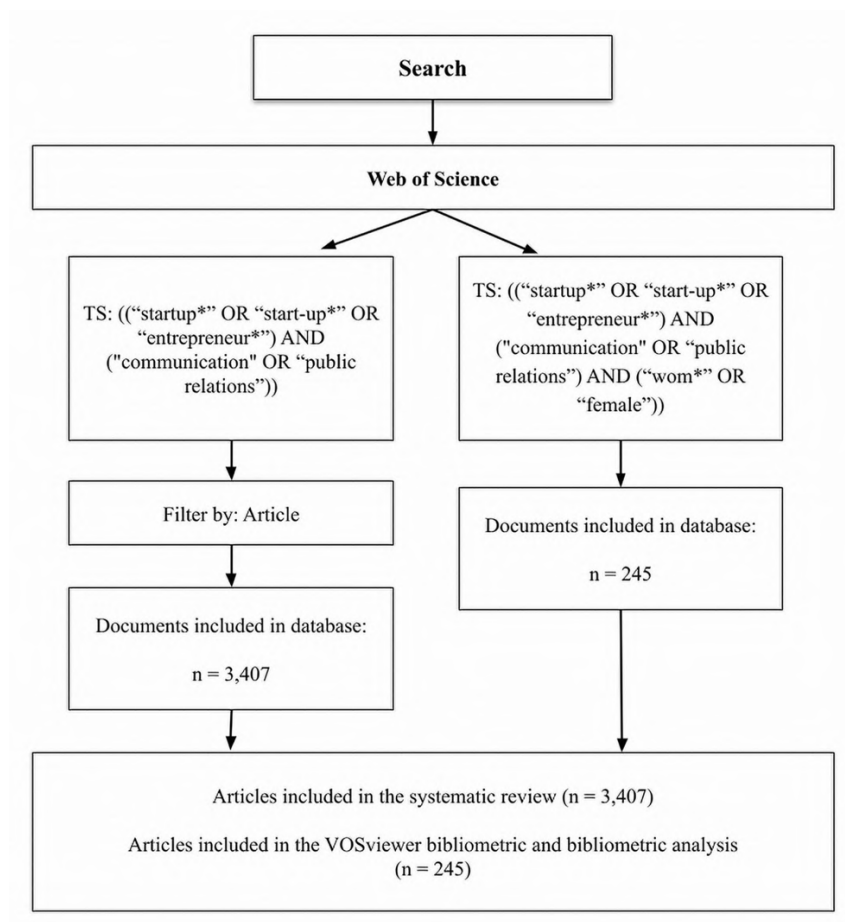
The responses collected are analysed with the aim of identifying patterns and trends in startups' communication management, considering the use of internal resources or the outsourcing of PR services, and assessing the impact of these decisions on the sustainability and growth of the companies. From the questions of the third block, related to the communication actions carried out and reputation, we collect information on whether the PR strategies are carried out by an internal manager or, on the contrary, the service is externalised.

In this way, a total of 183 startups have been contacted and are registered in the interactive map-observatory that has been elaborated for the achievement of this work and that can be consulted in the following pages, as one of the objectives of the current study. This observatory map has been created with the purpose of providing a broad overview of the location of a considerable number of startups in the autonomous region of Andalusia, as well as to identify the main centres of emerging companies in the region. In addition, it serves as a consultation tool and provides an overview of the main startups hubs in the region, facilitating the analysis of their location and sectoral specialisation. The survey was answered by 31 startups, representing a 16.9% response rate. This sample size, although limited, is adequate for an exploratory analysis to identify general patterns and trends in communication management and the role of women in startups in the region.

The number of companies surveyed is considered representative of the diversity of startups in Andalusia. The participating companies span different sectors and locations, with Malaga and Seville being the provinces with the highest representation, aligning with statistics that identify these provinces as the main centres of entrepreneurial activity in the region. This approach ensures that the selected sample reflects the reality of the Andalusian entrepreneurial ecosystem.

The startups database used has been created by integrating and refining the data provided by 'Startupsxplore' and other databases collected from various studies or observatories carried out by the research group, such as the "Observatorio W Startups C del Emprendimiento Innovador Femenino" (Iglesias-Sánchez et al., 2024).

Figure 1. Flow chart of the literature search



Source: Own elaboration.

4. RESULTS

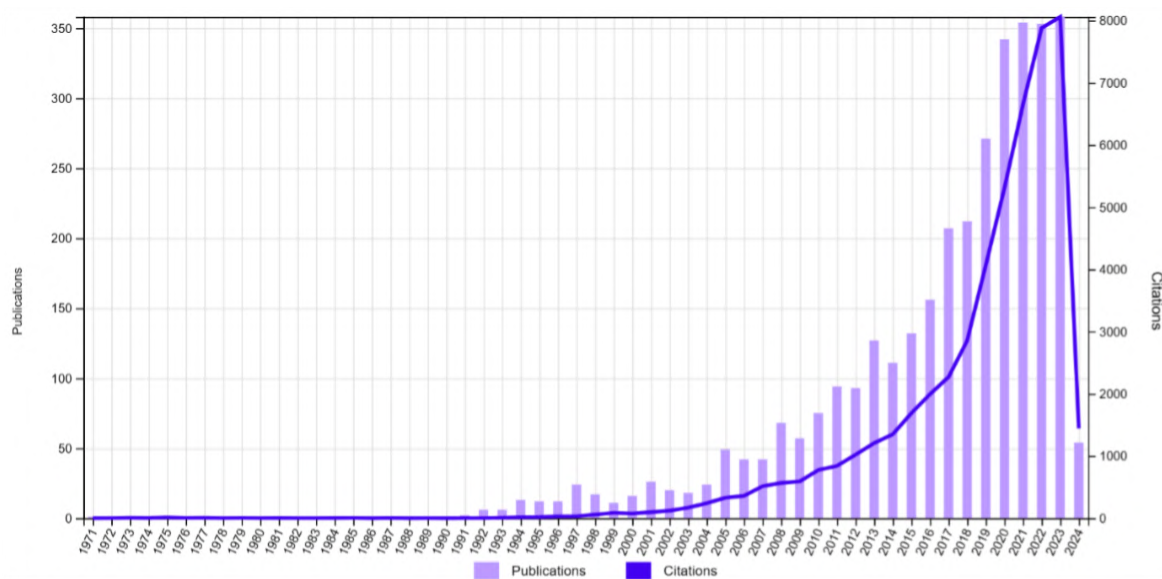
4.1. Systematic Review

Analysis of the records extracted from the Web of Science repository (dated 2 April 2024): 3,407 articles, shows a notable growth in scientific production on this subject, with the uninterrupted publication of more than 50 articles per year since 2008 (Figure 2). This increase is particularly notable in 2016, 2019 and 2020, when 156, 271 and 342 articles are counted, respectively. In the last four years this trend has moderated, although it is in 2023 (the last full year of the study) when the highest number of articles is recorded (358).

In addition to the number of published articles, Figure 2 also shows the citation curve of the referred papers, which approaches the vertical axis in more recent years. A significant increase in scientific output related to startups and PR can be observed since 2008, with major peaks

in 2016, 2019 and 2023. This increase can be attributed to the growing relevance of the topic in academia and its connection to emerging trends such as digitalisation and female entrepreneurship. The citation curve, which shows exponential growth from 2018 onwards, reflects the consolidation of the area as a topic of interest for the scientific community. This data is particularly relevant, as it positions PR management in startups as an emerging and strategic field within the communication sciences. As indicated above, the citation index, with an exponential growth from 2018 onwards, indicates that the selected records have obtained more than 44,500 citations, with 2023 being the year with the highest number (8,067).

Figure 2. Number of citations and publications over time



Source and elaboration: Web of Science.

The citation report (Table 2) shows the main data of the study analysed. The 3,407 articles obtained 44,549 citations with an H-Index of 90 (at least 90 articles have obtained 90 citations). The average number of citations per article is 14.89%, which shows that the subject area is of interest to the scientific community, as well as indicating a high visibility and impact of the works analysed in the field of startups and strategic communication. It is important to note that these data highlight the consolidation of key authors and seminal articles that are setting the standard in research on this topic.

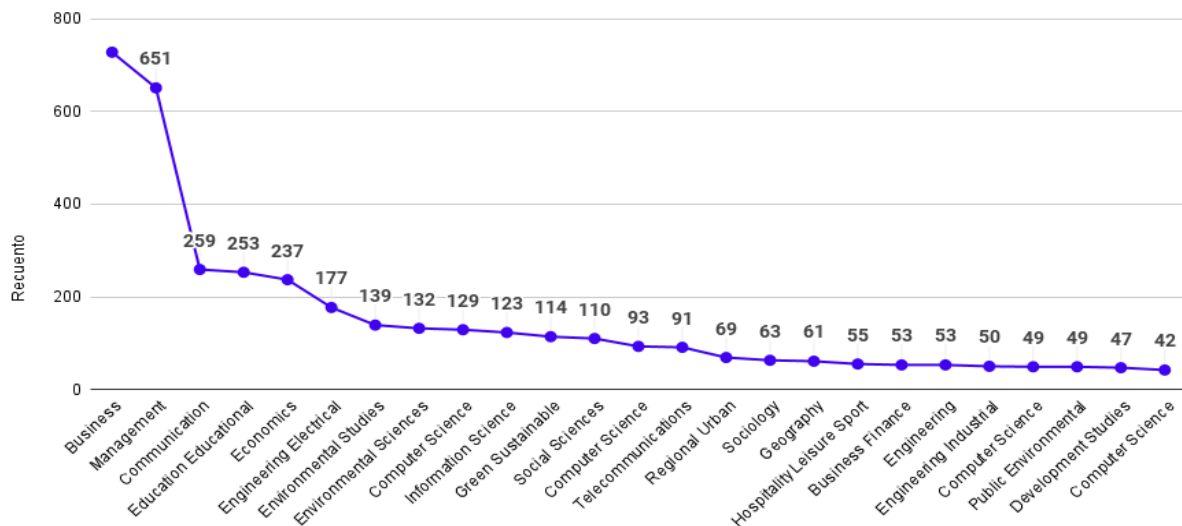
Table 2. Citation Report. Systematic review

Citation Report. Systematic review	
Publications	3,407
Article citation	44,549
Average citations per article	14,89
H-Index	90

Source and elaboration: Web of Science.

Figure 3 shows the distribution of articles according to the main areas of knowledge classified by the WoS database. The distribution of publications according to knowledge areas shows that the fields of business management, communication, educational research and economics concentrate most of the studies. This is evidence of the multidisciplinary nature of startups analysis and PR management, highlighting how these disciplines converge to address the complexities of strategic communication in startups.

Figure 3. Publications by area of knowledge



Source and elaboration: Web of Science.

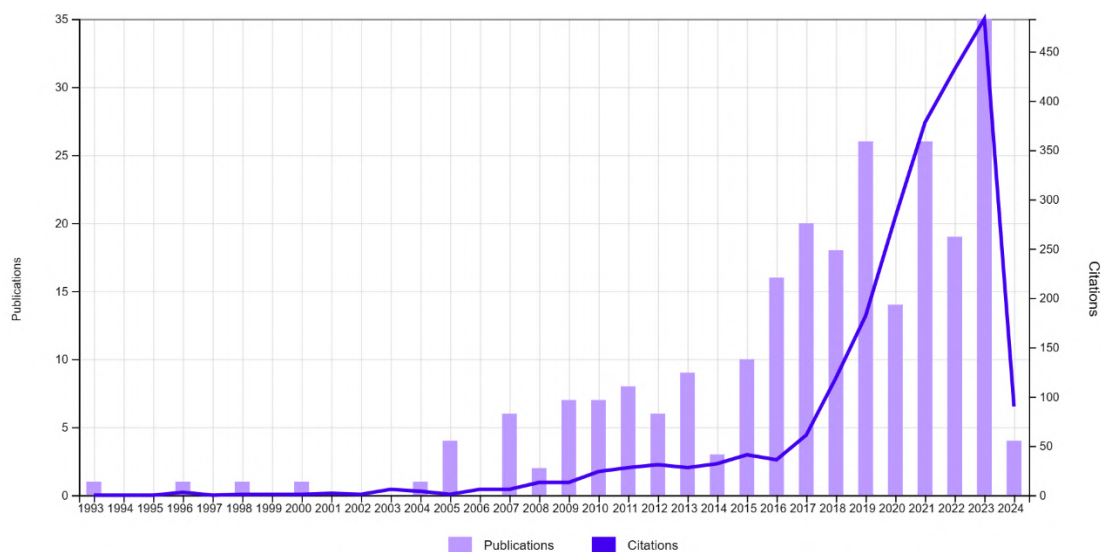
4.2. Bibliometric Analysis

If we further specify the search for records in WoS and consider gender in the scientific production on emerging companies and their management of Public Relations and Communication, the number of records found was 245 (on the date of analysis).

In the case of scientific literature, the trajectory over time is a more recent one. From 2007 onwards, the annual growth in the number of registrations and citations is steadily increasing, with more than ten articles published each year until reaching 34 publications in 2023.

Figure 4 shows the evolution of citations received by the articles analysed. A significant increase in citations is observed, which experiences an exponential growth from 2016 onwards, reaching its peak with 483 citations in 2023 until the date of the bibliographic search (March 2024). The publication of 34 articles in 2023 and the corresponding increase in citations reflect a growing interest in the relationship between female entrepreneurship and PR management. This is significant because it positions the topic as an emerging subfield that requires greater attention from researchers and policy makers.

Figure 4. Number of citations and publications over time - Female Entrepreneurship



Source and elaboration: Web of Science.

In the citation report for the second literature search (Table 3), the study data are shown specifying the search in the female domain, as discussed above. The 245 articles obtained 2,130 citations with an H-Index of 27. In this case, the average number of citations per article is over 9%. Compared to the overall data (Table 2), this sub-area represents 7.1% of the total number of publications, indicating a need for more scientific production in this area. However, the impact of the publications on women entrepreneurs is remarkable, given the volume of citations they have received in a relatively short period of time.

Table 3. Citation report. Bibliometric analysis

Citation report. Bibliometric analysis	
Publications	245
Article citation	2,130
Average citations per article	9.41
H-Index	27

Source and elaboration: Web of Science.

A comparison of the citation report data in Table 2 and Table 3 shows that of the 3,407 publications in the field of Public Relations and entrepreneurship/startups, 7.1% deal with women, represented by the 245 publications mentioned in Table 3.

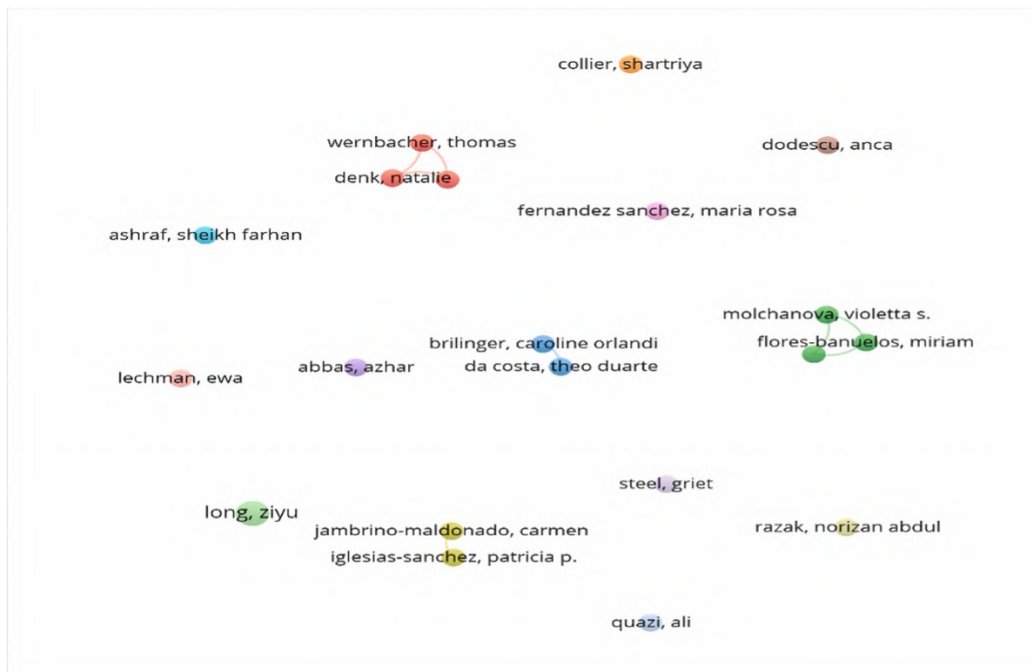
4.2.1. Keywords Analysis

In order to further study the role of women in entrepreneurship and PR management in startups, VOSviewer software is used to visualise the most relevant thematic correlations between the significant keywords present in the articles. The analysis of the keywords selected by the researchers for their papers, together with the co-occurrence analysis using

4.2.2. Authorship Analysis

In the analysis of the authors, it was found that the subject is approached in a very independent manner, with almost no correlation between the different authors. There are some exceptions with some authors belonging to the same organisation, but no strong correlations between authors are found at the international level (Figure 6).

Figure 6. Author analysis



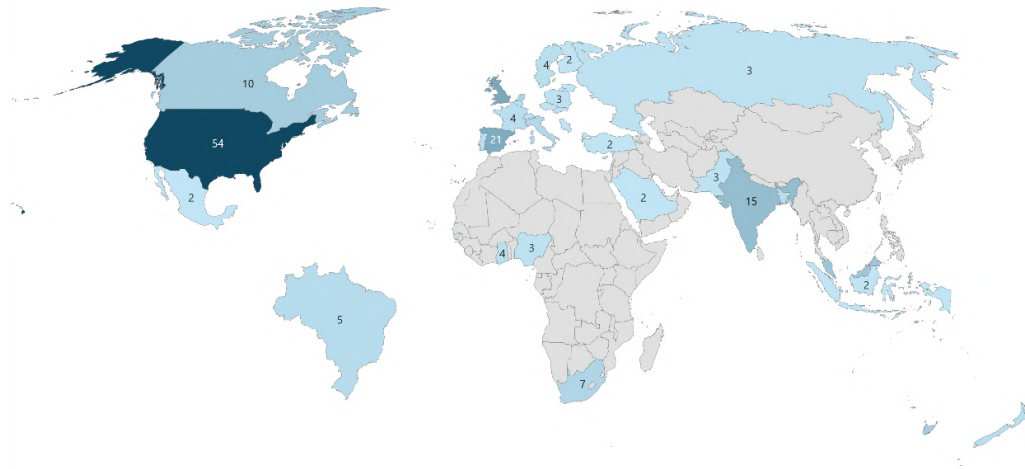
Source: Web of Science and VOSviewer. Own elaboration.

If we look at the number of articles written by authors with the highest correlation in the analysis, Ziyu Long, from the University of Colorado, stands out as the author with the highest number of papers on this topic. Most of the papers on this topic are authored by women.

4.2.3. Country and Organisational Analysis

In the analysis of the countries with the greatest scientific production and their interconnections (Figure 7), the United States stands out with more than fifty documents, followed by England and Spain, each with more than twenty records, respectively.

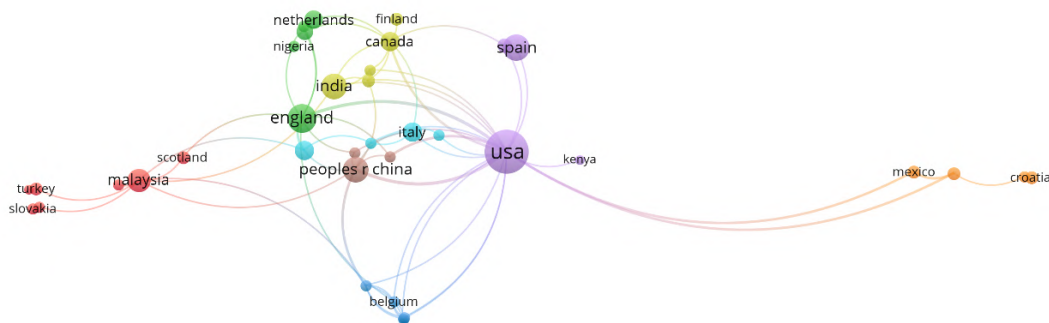
Figure 7. Choroplatic map



Source: Web of Science and VOSviewer. Own elaboration.

When examining the correlation between these countries, three clearly defined groups emerge. First, both Mexico and Croatia show a tendency to operate more independently, without establishing strong links with other countries. Secondly, a similar situation is observed, although a greater interaction and rapprochement with partner countries is noted. Finally, the most robust correlations between countries such as the USA, England, China, Spain, among others, stand out (Figure 8).

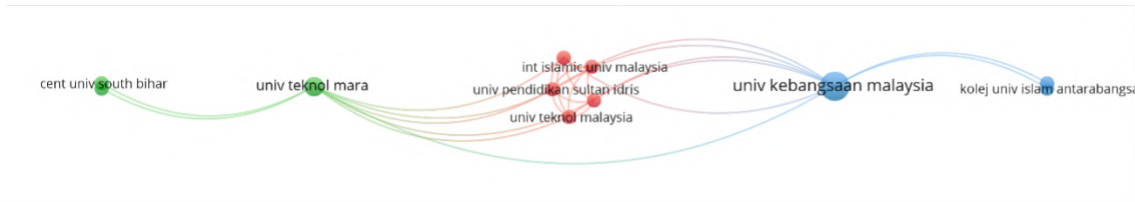
Figure 8. Map of year of concurrence between countries



Source: Web of Science and VOSviewer. Own elaboration.

When examining collaboration between organisations researching the role of women in entrepreneurship, Figure 9 shows less linkage between universities. It highlights a direct relationship mainly between Malaysian universities and Indian universities.

Figure 9. Map of year of concurrence between organisations



Source: Web of Science and VOSviewer. Own elaboration.

4.3. Survey Results

According to the ‘Startupsxplore’ register, as of 20 March 2024, there are 3,546 active startups in Spain, of which 8.88% are based in Andalusia (315), and the rest of the startups are based in other regions of Spain. After completing the survey at the Andalusian regional level, the responses of 31 startups have been recorded, from which the results will be extracted in the following section.

With the global data of the Andalusian startups contacted (181), an interactive map-observatory has been created showing their geographical location. This map allows access to more detailed information on an updated number of Andalusian startups (Figure 10)⁵.

Figure 10. Static representation of the interactive map



Source: Own elaboration.

⁵ The map can be consulted at the following link:

https://www.google.com/maps/d/edit?mid=1cvEuw1veHtD_2yVzM5-uN-pWxLekoro&usp=sharing.

4.3.1. General Description of the Companies

Firstly, the prevalence of the technology sector among startups is highlighted, covering various branches such as health, tourism, sustainability and education. Next, the marketing and communication sector is another important area of specialisation. Finally, other sectors are identified such as: sales, electronics, blockchain or video games (Figure 11).

Figure 11. Specialisation of companies



Source: Survey. Own elaboration.

When analysing the geographical distribution of startups (Figure 12), Malaga is the province with the highest concentration of startups among those interviewed, followed by Seville. This coincides with the data reported in the summary, where both provinces are home to the highest proportion of these startups.

Figure 12. Locality of Origin



Source: Survey. Own elaboration.

Thirdly, in terms of the year of startups activity, it can be seen that the majority of startups have started in the last four years (2020-2024), coinciding with the period after the COVID pandemic. This is followed by the period 2015-2020, where most startups were created between 2018 and 2019 (Figure 13).

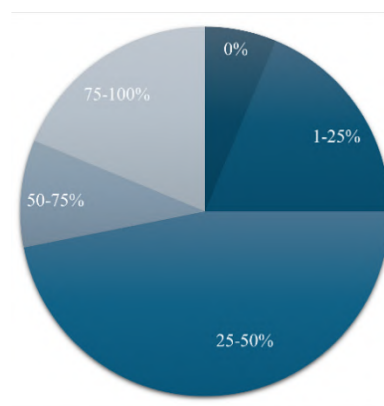
Figure 13. Year of start of activity



Source: Survey. Own elaboration.

As far as the gender composition of startups is concerned (Figure 14), it can be seen that female representation is predominant in startups, with this group accounting for between 25% and 50% of the total number of female employees. This is followed by those entities with a proportion of women from 75% to 100% and from 1% to 25%. Only two startups do not have any female employees.

Figure 14. Female members in startups



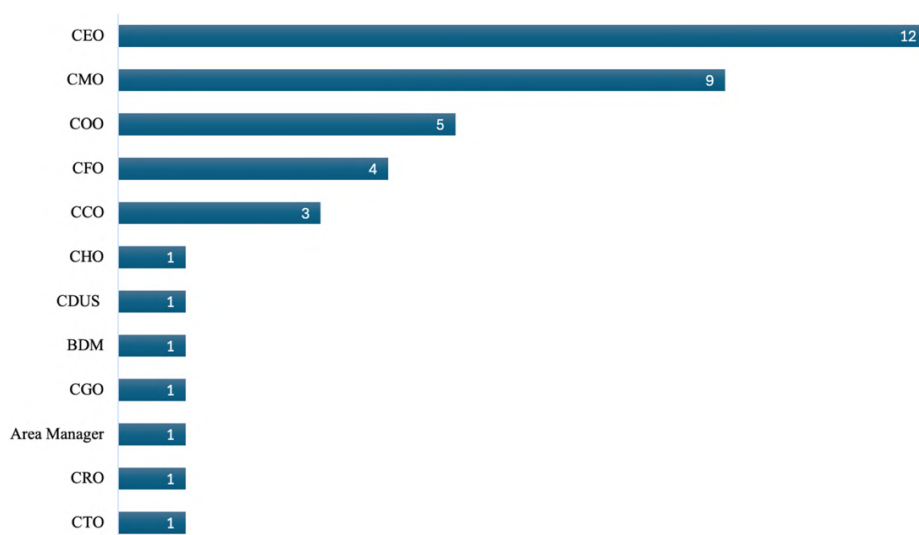
Source: Survey. Own elaboration.

4.3.2. Profiles in the organisational chart of the company.

In the most common professional profiles in startups, the figure of the CEO (Chief Executive Officer) is the most prominent, present in most of the companies surveyed. This is followed by the CMO (Chief Marketing Officer), COO (Chief Operating Officer) and CFO (Chief Financial Officer), who also have a high presence. It is worth highlighting the presence of the DIRCOM (Chief Communications Officer) in three of the startups and, singularly, the figure of the CHO (Chief Happiness Officer) in one of them, together with the figure of the CDUS (Chief Design Unique Structure).

Among the most common positions in startups held by women, the following stand out, from highest to lowest presence: CEO, CMO, COO and CFO. It is important to mention that women also have a significant presence in the field of communication, marketing and public relations, occupying positions such as CMO, DIRCOM or Communications Manager (Figure 15).

Figure 15. Female profiles in the startups's organisational chart

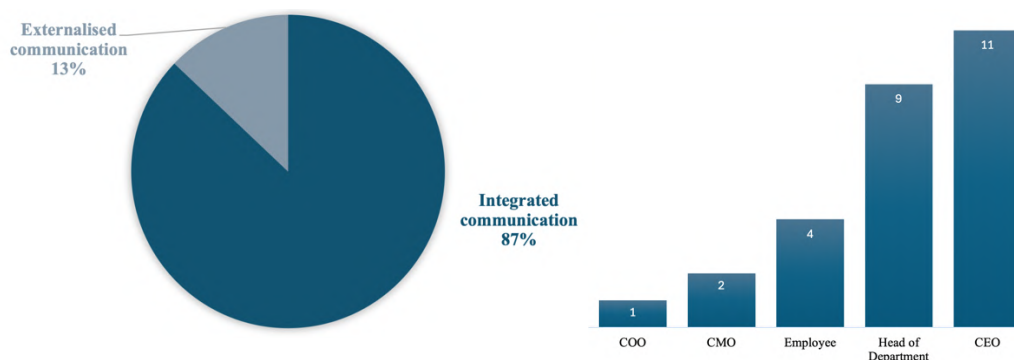


Source: Survey. Own elaboration.

4.3.3. Communication and Public Relations

According to the data obtained (Figure 16), 87% of the startups surveyed manage communication in a way that is integrated into their organisational structure. In turn, within these companies, the person responsible for communication is usually the CEO (40.7%), followed by the head of department (33.3%), employees (14.8%), the CMO (7.4%) and the COO (3.7%). It is worth noting that 59% of these positions are held by a female figure.

Figure 16. Communication management



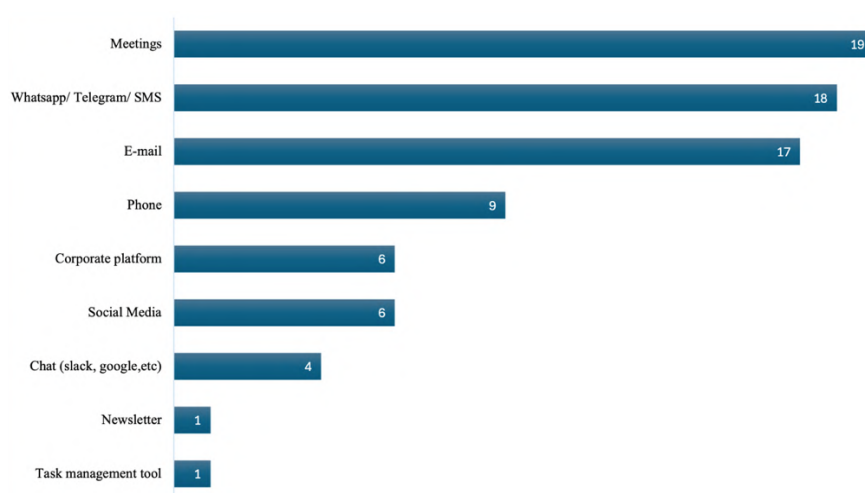
Source: Survey. Own elaboration.

The responses collected on the main tasks involved in communication management reveal a number of commonalities and differences in the main tasks of the corporate communication manager. Communication managers in several companies share a number of main responsibilities related to marketing, communication and design. Firstly, they are responsible for creating and implementing communication strategies in both online and offline environments. In addition, they manage brand communication and social media, maintaining an active online presence. They are also involved in the executive and technical management of the company, working closely with management and marketing. In terms of general management, they lead projects, represent the company at events and negotiate with clients. Other responsibilities include business acquisition and development, as well as the day-to-day communication and writing of communication materials.

Although they share many tasks, there are significant differences in the specific focus and responsibilities of each communications officer. For example, some focus on communication strategy development and monitoring, while others specialise in building marketing and sales relationships with leads and partners. In addition, communication managers may have different levels of involvement in managing resources and promoting collaboration within the company, depending on their position and organisational structure. In addition, internal and external communication can vary in terms of platforms and approaches used, from social media and blogs to formal communications such as press releases.

The communication channels used in the company are diverse. For internal communication, meetings are the first, followed by messaging channels such as WhatsApp, Telegram or SMS, together with emails, as the most used channels to communicate internally in the company (Figure 17).

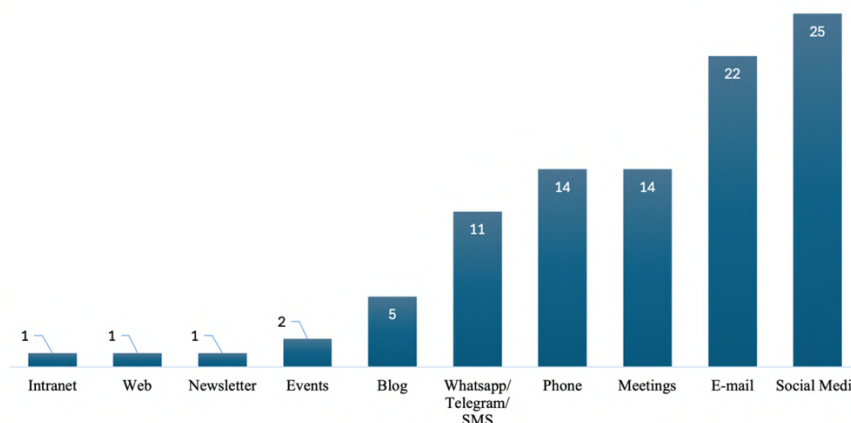
Figure 17. Internal communication channels



Source: Survey. Own elaboration.

On the other hand, an analysis of the most frequently used external communication channels (Figure 18) shows that social networks are the most frequent tools, followed by email and meetings.

Figure 18. External communication channels



Source: Survey. Own elaboration.

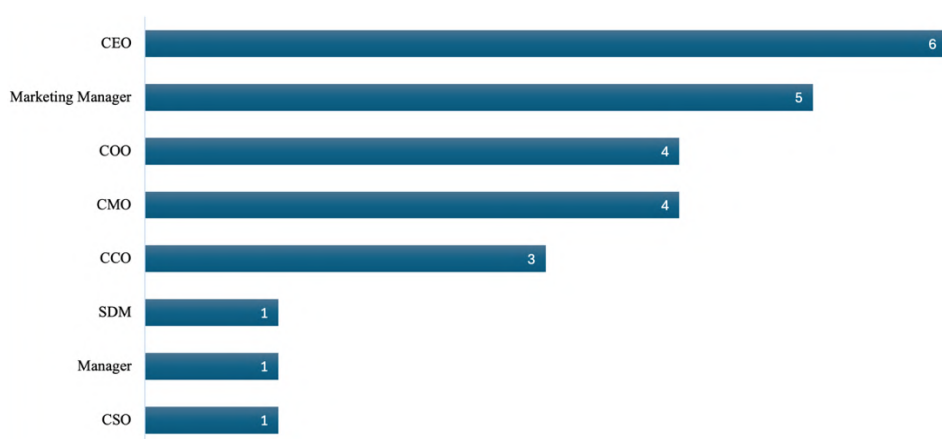
When asked about the main strategies and actions that the PR team develops in the company, the participants in the survey agreed that the common objective is to strengthen their presence in the market and to attract potential clients. Shared actions include attending events relevant to the sector, participating in workshops and professional meetings, as well as collaborating with specialised media to disseminate key messages about the company. In addition, priority is given to the creation of specialised and educational content for social networks and other communication channels, as well as participation in strategic events for branding and lead generation.

However, there are differences in the specific strategies that each company employs for its PR. Companies are engaging in webinars, conferences and international opportunities, while they also value attendance at industry events or collaboration with professional associations. Some companies choose to sponsor key events as part of their branding strategy, while others focus on developing valuable content and communication in specialised media to highlight their expertise and knowledge. In addition, they work with PR agencies to expand their reach in national and international markets, and strategic alliances are established with influential brands and professionals to amplify their message and reach new audiences.

Regarding the main communication challenges faced by companies, it highlights the need to make new technology understood, reach a wide target audience and overcome the lack of contacts that limits the scope of communication actions. It also underlines the importance of being known before implementing a strategic plan, attracting leads and achieving organic growth on social networks. Other common challenges include geolocating the message to reach specific audiences, capturing the user's attention in an environment saturated with advertising stimuli, and communicating the product's value proposition clearly and simply. While companies face similar challenges, there are also sector-specific differences, such as the difficulty of communicating complex engineering concepts. In addition, companies must establish effective communication strategies, adapt to new trends and create a positive image of the company both internally and externally.

In the field of Public Relations, startups present a heterogeneous reality. According to the data obtained, 55% of startups do not have a department or professional specifically dedicated to this area. On the other hand, the remaining 46% do have someone in charge of PR. Within the startups that do manage PR internally (Figure 19), a diversity of profiles can be observed that assume this responsibility. The most common is the CEO (24%), followed by the head of marketing (20%), COO and CMO, or communication professionals (DIRCOM).

Figure 19. Person in charge of Public Relations



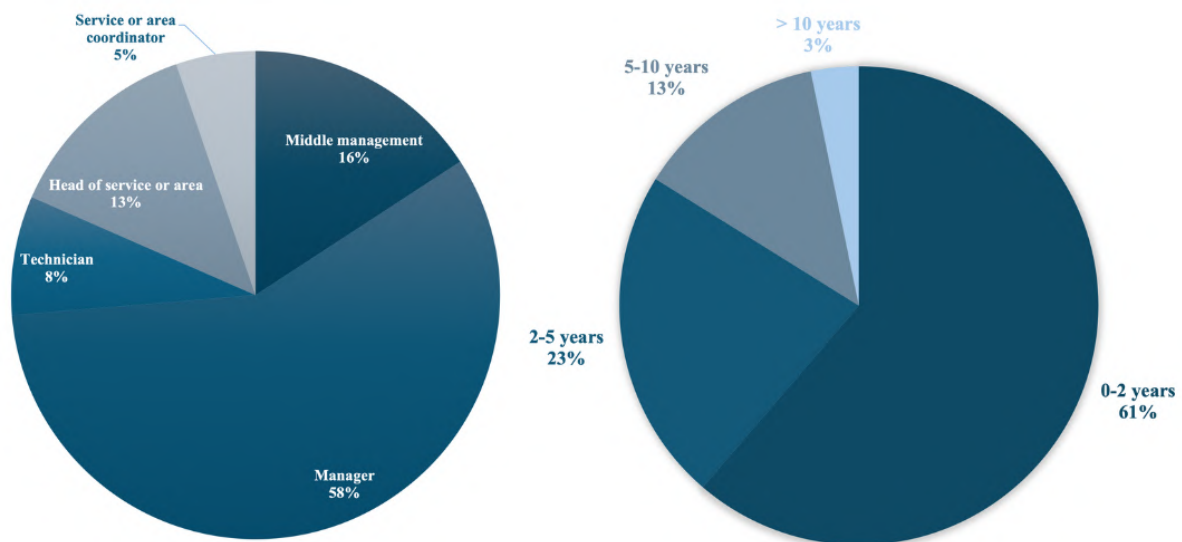
Source: Survey. Own elaboration.

4.3.4. Participant Profile

In terms of the profile of the survey participants, the majority were CEOs (60.6%) of the participating startups. They were followed by CMOs (12.1%) and COOs (6%).

A closer look at the gender of the participants shows a remarkable parity, with 52% of women and 48% of men. Analysing the positions they hold within the startups, the most common profile is that of manager (58%), followed by middle management (16%) and head of service or area (13%). In terms of seniority in the company, 60% of participants have only been in their position for two years. This is closely linked to the youth of the startups, as could be seen in the first point of the survey results where the year of starting the activity was commented (Figure 20).

Figure 20. Role and seniority in the company



Source: Survey. Own elaboration.

If we analyse the academic background of the participants, the high prevalence of postgraduate studies stands out, with 41.86% of the participants holding a Master's or postgraduate degree. This is followed by university graduates (16.27%) and PhDs (13.95%).

5. DISCUSSION

The results confirm the importance of PR in the viability and sustainability of startups, especially in the first years of life, as suggested by authors such as Romero Quintero (2011) and Villena Alarcón (2013). These authors emphasise that PR is crucial for the development and maintenance of relationships with stakeholders, which is reflected in the Andalusian startups analysed, where communication strategies are integral to business success.

Furthermore, it was observed that the COVID-19 pandemic aggravated gender inequalities in entrepreneurship, as reported by Crotti et al., (2021) and Fernández Laviada et al., (2024). This

impact is evidenced by the reduction in women's participation in entrepreneurship after the pandemic, although it is observed that more and more women have managed to become entrepreneurs in recent years. However, it is worth highlighting the need for more robust support policies for women entrepreneurs, a recommendation consistent with previous studies.

The bibliometrics reveal a remarkable growth in research on female entrepreneurship and its relationship with PR, especially since 2007, which coincides with the rise of digitalisation and the integration of ICTs in business, a trend identified by Rando-Cueto et al., (2022). This growth in the literature reflects a growing academic interest in understanding how women entrepreneurs manage the communication and reputation of their firms, an aspect also highlighted by Men et al., (2017).

On the other hand, the survey conducted shows that, although a significant percentage of startups have a PR department, these functions often fall to the CEO, evidencing an organisational structure where communication is centralised. This finding resonates with the literature highlighting the importance of communication leadership, as mentioned by Men et al., (2021) who identify CEO communication as a key factor for employee engagement and business performance.

Finally, the communication challenges identified, such as the need to explain complex technologies and reach broad audiences, are consistent with the challenges identified by Picken, (2017) and González-Cruz et al., (2020) who underline the importance of agile and effective communication in a dynamic business environment.

In conclusion, this study confirms the relevance of PR in the startups ecosystem in Andalusia and underlines the need to strengthen communication skills within organisations, with special attention to the inclusion of women in leadership roles. The integration of effective communication strategies not only improves the visibility and reputation of startups, but also facilitates their growth and adaptation in a competitive market.

6. CONCLUSION

In relation to the objectives set at the beginning of the study, the following conclusions can be drawn. Firstly, it can be seen that scientific production, in relation to the second search and taking into account the role of women, has experienced significant growth since 2007, and is even more notable in the latter year 2023. This undoubtedly indicates a growing interest in the subject within the academic community. Secondly, the 245 articles focusing on female entrepreneurship have obtained 2,130 citations with an H-Index of 27, reflecting that the topic in question is an emerging sub-area with growing recognition. The keyword co-occurrence analysis carried out with VOSviewer shows that terms such as 'entrepreneurship', 'gender', 'women entrepreneurship', 'ICT', 'communication', 'social media', and 'women empowerment' indicate the relevance of technology and communication in women's entrepreneurship. Furthermore, the research shows a close relationship between PR and e-commerce, highlighting how the role of PR is crucial to the success of e-commerce, contributing to building brand reputation. Following the survey data, startups face several

communication challenges, including the need to explain the technologies developed and to reach a wider audience. 55% of startups have a dedicated PR department, where the CEO profile often assumes this responsibility, highlighting the importance of the PR role in the organisational structure of startups.

According to the survey data, startups face several communication challenges, including the need to explain the technologies developed and reach a wider audience. 55% of startups have a dedicated PR department, with the CEO profile often assuming this responsibility, highlighting the importance of the PR role in the organisational structure of startups.

The study paints an optimistic picture regarding the expansion of female entrepreneurship in Andalusia, with a growing focus on the integration of PR and technology. Female representation in leadership and communication roles in startups is significant, and research in this field is gaining recognition, although there is still room to increase international and gender-specific collaboration.

PR roles in these startups include the creation and execution of communication strategies, social media management, executive management, and participation in events and public relations, among others. Common challenges are addressed through strategic actions, such as the creation of valuable content and collaboration with specialised media and agencies. In addition, internal and external communication channels are diverse, with a strong focus on the use of social media and digital tools to strengthen the company's presence in the market. These findings highlight the importance of the PR role in the success and growth of Andalusian startups, as well as how these roles are adapted to face challenges and seize opportunities in a dynamic business environment.

Regarding the alternatives proposed to define the main communication channels to attract customers and investors, Andalusian startups implement several comprehensive communication strategies. Startups implement various communication strategies, such as the creation of specialised content, collaboration with influencers and media, and participation in industry events. These practices strengthen their visibility and reputation in the market, while improving their ability to attract customers and investors.

On the one hand, the results show that the CEO profile plays a crucial role in public relations. Therefore, it is essential to develop internal skills by training CEOs and top management in strategic communication, in addition to providing adequate tools for internal management. Startups should leverage key channels such as social media and email to disseminate engaging and relevant content. Participating in industry events is also essential to strengthen their network and credibility.

On the other hand, the creation of specialised content and collaboration with influencers and the media are crucial to increase the visibility and reputation of startups. In addition, the implementation of technological tools for data analysis and management, together with effective segmentation of the target audience, allows for strategic adaptability and rapid response to market needs.

The results obtained have direct implications for current startups practices. The lack of professionalisation of PR management in many startups suggests the need for further specialisation. It is recommended that startups train their internal teams in strategic communication or hire external specialists to maximise the impact of their PR strategies. In addition, promoting the inclusion of women in communication leadership roles can enhance diversity and enrich strategic perspectives.

In terms of future lines of research, several areas have been identified. Firstly, an extension of the geographical scope where comparative studies are carried out with startups in other regions or countries to see if the trends are representative at a global level. Secondly, to analyse the impact of emerging technologies, such as artificial intelligence or big data, on PR management in startups. Finally, to delve into the specific dynamics that affect women entrepreneurs in their communication and PR management.

The limitations of the study include, firstly, the size of the sample: data were collected from around thirty startups located in the Andalusian region due to a lack of interaction between the entities contacted. In addition, possible subjective biases in the answers provided by the participants are noted. Both aspects are expected to be solved in the future by enlarging the sample and offering a more ambitious approach to the research than the regional one.

In conclusion, this study confirms the relevance of PR and strategic communication in the startups ecosystem in Andalusia, while underlining the importance of integrating technological tools, reinforcing the professionalisation of PR and promoting the participation of women in key roles. These results not only contribute to the theoretical understanding of the topic, but also offer practical recommendations for the growth and sustainability of startups in the region.

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