

Financial Communication in Crisis Situations

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Abstract

Financial communication plays a key role in shaping stakeholders' decision-making processes, acquiring even greater importance in today's turbulent global landscape marked by various overlapping crises. Thus, the aim of the research revolves around a theoretical exploration, supported by a bibliometric analysis, to emphasize the intrinsic importance of financial communication. The research methodology is based on a bibliometric analysis of 3,000 scientific papers indexed in the Web of Science database, from 1975 to 2023, focusing on financial communication. To facilitate this analysis, specialized software tools for data processing and bibliometric exploration, namely VOSviewer and Bibliometrix, were used. The research findings underline the complexity and interdependence of the financial communication process in organizations, highlighting its evolution from transparency and reduction of information asymmetry in periods of stability, to the need for rapid adoption of digital technologies and integration of ESG dimensions during recent crises, all of which are essential to meet stakeholders' demands and maintain investors' trust. The results of the study may be useful for researchers in creating future research directions on financial communication, as on the one hand it represents a real tool for assessing the quality and effectiveness of new factors that can lead to improvements in the financial communication process.

Keywords

financial communication; research clusters; multiple crises; digitalization; stakeholders

Introduction

The development of national economies implicitly led to the development of small, medium, and large businesses, requiring means of communicating with stakeholders in the external environment of these companies. Over time, financial communication has always been viewed with distrust, especially by small producers, who perceived it as a disclosure of economic and financial secrets within companies and a violation of the right to privacy. At the opposite pole, are the large and medium-sized enterprises (SMEs), which are interested in attracting investments and finding funding sources, which has led to the unconditional creation of solutions for streamlining communication between their management and stakeholders with different interests in their companies. In their eagerness to attract new investors, clients, and suppliers, companies tend to provide quality information in significant volumes to these categories, creating a certain level of informational asymmetry to the disadvantage of other stakeholders.

Currently, SMEs still do not have adequate structures or efficient information systems with prospective relevance that can provide sufficient information regarding their strategies. This lack of information generates serious problems, especially in a time like the present, when multiple crises have led to a natural selection of competitors on the market. The informational avalanche caused by

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the big companies can generate a series of disadvantages to the other competitors, leading to a reduction or even loss of competitive advantage.

Therefore, it is not enough just for the management of companies trying to communicate with the external environment to monitor their operational activity closely, but also for an objective assessment of investments and their return on investment, and of the impact on the financial sustainability of the business, all of which play a crucial role in the context of economic and financial communication. In this context, the aim of the research revolves around a theoretical exploration, supported by a bibliometric analysis, to emphasize the intrinsic importance of financial communication. The objectives pursued are the following: O1 - analyzing the context of the financial communication process in the pre-crisis period and ways to reduce information asymmetry; O2 - identifying the influencing factors of financial communication during the COVID crisis; O3 - identifying the information gaps and influencing factors of financial communication with the onset of the global energy crisis and the geopolitical crisis.

The research methodology is based on a bibliometric analysis of 3,000 scientific papers indexed in the Web of Science database between 1975 and 2023 on financial communication. Data processing and bibliometric analysis were carried out with VOSviewer and Bibliometrix software. The obtained results have been concretized in the construction of research clusters that include the key elements of the influence of financial communication during the reference period, with a focus on the health, energy, and financial crisis.

The results of the study can be useful to researchers in creating future research directions on financial communication because it represents, on the one hand, a real tool for evaluating the quality and efficiency of new factors that can lead to the improvement of the financial communication process, and on the other hand, to test the intensity of the links between these factors. At the same time, this research complements the literature by providing a comprehensive picture of the evolution of financial communication from 1975-2023, emphasizing the role of overlapping crises such as the COVID-19 pandemic, the global energy crisis and geopolitical conflicts on shaping/adapting firms' financial communication with stakeholders. Previous studies have focused on narrower aspects such as the role of financial communications in meeting stakeholder requirements, whereas this research, using bibliometric analysis, integrates and analyzes the influences of several types of crises, while highlighting the importance of digitization in increasing the efficiency and effectiveness of financial communication, especially during times of crisis, with stakeholders.

Literature review

According to Coda (1991), economic communication represents the process of disseminating information by the company's management to all stakeholders without any limitation regarding the evolution of the main economic indicators recorded by the company, while financial communication, according to Bertinetti (1996) is more of an instrument that ensures the transmission of information to capital market operators, providing more general economic information.

Seen as a whole, the two communication tools form the main channel for transmitting information about the economic and financial state of the company, allowing prognoses and scenarios to be made regarding its activity evolution or the economy in general. The main characteristics of economic-financial communication can be summarized as follows: awareness, transparency, responsibility, attention to people and the environment, sustainability, inclusion, and involvement. Practically, they represent the pillars of effective communication and, respectively, the path to a free and open relationship with the entire organizational environment of the enterprise. Salvioni (2002) considers financial communication as "an intangible asset of primary importance for corporate development." Financial communication has a fundamental role in developing economic relations (Tetlock, 2014) and in ensuring the sustainable development of the economy (Newig, 2011). The provision of real and transparent information contributes to strengthening relations with stakeholders and also contributes to the creation of value for the enterprise (Borghesi et al., 2019; Adegbite et al., 2019). In this sense, objective 1 of the research is based on the context analysis of the financial communication process in the pre-crisis period (1975-2019) with a focus on reducing the informational asymmetry.

The ability of the enterprise to convey relevant and up-to-date information is an essential asset for its development and attracting new investors. In times of crisis, the need for information increases, and to maintain a high level of trust from investors, customers, suppliers, and other stakeholders, business managers must disclose information about their activity with greater

frequency, especially to publicize the main activities/objectives undertaken/established by the enterprise in mitigating the effects of the crisis. To maintain their level of trust in times of crisis, companies are sometimes forced to publish non-public, privileged information that directly relates to the company's operational activity. For example, during the pandemic crisis caused by the Sars COV-2 virus, several international and national regulatory institutions obliged companies to publish information regarding the impact of COVID-19 on the company's position and performance, as well as on their financial development prospects. Combos (2015) argues that the purpose of crisis communication is "to reduce the damage that a crisis causes to an organization and its stakeholders...", but too often, communication focuses on the organization. In times of crisis, managers must ensure the physical safety and psychological well-being of crisis-affected stakeholders." Publishing information is not enough in times of crisis, as it must be argued and explained (Palmieri, 2017) to ensure an optimal level of transparency. Dragsted (2014) analyzed linguistics and topic changes in communication between Danish banks and shareholders during the pre-crisis period (2004-2007), during the crisis (2008-2011) and after the crisis (2012-2013), concluding that between the pre-crisis and crisis periods there is a difference in communication especially "in terms of the topics discussed in light of the changing external circumstances and the bank's financial performance, the post-crisis period reflecting a more fundamental shift in genre, manifested in less technical vocabulary, a higher frequency of interactional discourse markers and more loaded words. " In other words, in periods of economic stability, the communication relations between the company and shareholders are more narrative, while in periods of crisis, they are more technical, revealing quantitative and valuable information about the company's activity. Bargenda(2015) argues that in times of crisis, companies adapt their communication strategies "to signal deep institutional transformations in response to the depletion of trust and the deterioration of public image." In this sense, the premise of establishing the objective O2-Identification of the influencing factors of financial communication during the COVID crisis (2019-2021) is taking shape.

The Russian-Ukrainian war, which escalated in February 2023, has had a significant impact on the international business environment, exposing the main shortcomings of the world's economies, especially the vulnerability of Europe in terms of energy resources. The COVID-19 pandemic and the military conflict between Russia and Ukraine are some of the two factors that led to the increase in oil and gas prices. The economic restrictions imposed by the European Union (EU) and other states on Russia led to the cessation of natural gases and an increase in prices. Thus, in addition to mitigating the effects of the COVID-19 pandemic, the economic environment is forced to identify solutions for alternative energy sources. The role of financial communication in this period translates into the company's ability to develop sustainably. In addition to financial performance, the company must communicate information on its sustainable development path, which involves recording economic, social, and environmental performance. The main guidelines of the management of the enterprise are to make public information regarding the procedures for sustainable development and overcoming the global energy crisis. Genc (2017) believes that "high levels of complexity and uncertainty characterize sustainability issues, therefore communication plays a key role in providing information between agents." During periods of economic recession or crises, the purpose of economic-financial communication is to assure the stakeholders that the management has assessed the impact of this threatening environment on the enterprise's activity and identified the main opportunities and risks in such a context. According to a study by Sanchez (1999), the success of an enterprise is directly influenced by communication, and the ability of the enterprise to communicate effectively is an important asset that gives certainty to investors regarding the sustainability of the business. Genc (2017) argues that in order to establish "effective communication, managers in an organization must channelize the receiver, which means communicating in a simple, direct and precise manner, be it oral or written." Effective communication in times of crisis involves broadening the information base and "involving an increased amount of societal values" (Funtowicz & Ravetz, 1993). However, several studies show that companies provide scattered or even incomplete information (Gutiérrez Ponce et al., 2023). This was also one of the reasons behind the application of International Financial Reporting Standards (known under the acronym IAS/IFRS) by all companies listed on a regulated stock exchange from all over the world, to communicate through a universal and uniform language, with all categories of stakeholders (Țurcanu et al., 2008; Huff et al., 2014). A basic characteristic of these standards is the emphasis on the quality of the provided information. These qualitative attributes are listed and explained in the conceptual framework IFRS (2010) and are classified into fundamental characteristics (relevance and faithful presentation) and amplifiers (comparability, verifiability, timeliness and understandability). Therefore, effective

communication with stakeholders is essential to increase a firm's performance. The quality of information provided as part of this process plays a key role in influencing the firm's performance. Of particular importance is the reliability of financial reporting (Kim Quoc et al., 2024), which directly influences firm performance.

In other words, financial communication and disclosure of information by an economic entity represents the set of information reported to the external environment regarding the financial, patrimonial, and economic situation, but also information about the evolution of the activity, performance, etc., that are considered valuable by stakeholders (Socoliuc, 2016). As a rule, the reporting of financial information is motivated by the protection of shareholders' interests and protection against other competitors, as well as the general interests attributable to the financial market (Cosmulese & Grosu, 2019). The recipients of the financial information are the stakeholders, i.e., those who have an interest of any kind in the reporting entity, such as investors, customers and suppliers, creditors, managers, employees, state authorities, and the general public (Ciubotariu et al., 2019). Given the heterogeneity of information recipients and business information tools, the quality of this information is essential, along with its provided volume, in order not to further accentuate the existing information asymmetry (Socoliuc et al., 2023; Grosu et al., 2017; Melega et al., 2023). It is obvious that for qualitative communication, qualified human resources are needed to monitor, understand, and prioritize the interests of the company's stakeholders. In the current economic and social context, the natural question arises whether all these premises will be sufficient to maintain good communication between companies and stakeholders or whether the communication process will have to be reinvented under the inevitable effects of the digital revolution (Cosmulese et al., 2019). Based on the empirical findings, the 3rd objective of the paper is created: the identification of informational deficiencies and the influencing factors of financial communication with the onset of the global energy, financial, and geographic crisis.

Methodology

The research methodology focuses on a bibliometric analysis, namely a keyword co-occurrence analysis, carried out to explore the field of financial communication. The analysis was performed using VOSviewer and Bibliometrix software and was based on the corpus of literature available in this field on the Web of Science platform, from 1975-2023. The Web of Science (WoS) platform was chosen because of the reputation of this database for indexing high-quality, internationally recognized publications that undergo a rigorous evaluation process. WoS also offers extensive coverage of the fields of economics and finance, which makes it suitable for bibliometric studies in these areas of research, ensuring the validity and relevance of the results. Also, the exclusive selection of publications on the WoS platform is supported by Sanchez et al. (2017), who show that there is no significant difference in the quality of papers indexed in WoS and those indexed in SCOPUS. Nevertheless, the choice of WoS over SCOPUS is justified not only by the reputation of the platform in indexing articles in the fields of economics and finance but also by the fact that WoS has a longer tradition in cataloguing these specific fields, offering a wider temporal coverage, from 1975 to the present. At the same time, WoS is more accessible for bibliometric studies due to the advanced search and analysis functions offered by the platform, which offer more detailed data for term co-occurrence studies, ensuring well-founded research.

The period 1975-2023 was selected for analysis, this choice being motivated firstly by the fact that the earliest available publications start from 1975, and secondly, this extended interval of about 50 years provides an overview of the evolution of research, allowing to identify the most important turning points or paradigm shifts in the literature and to observe the development of new, emerging sub-domains of research on the topic of financial communication.

To ensure the inclusion of the most relevant academic papers aligned with the research objectives, a targeted search was conducted using the keyword 'financial communication'. We narrowed the search to include just four research areas: economics, business, management and business finance (see Table 1).

Table 1 The methodology for identifying and selecting data

Database: ISI Web of Science	
Topic: financial communication	
Inclusion criteria: <ul style="list-style-type: none"> - Research areas: Economics, Business, Management and Business Finance. - Scientific and research papers. - Indexing platform: WoS 	
Exclusion criteria: <ul style="list-style-type: none"> • Adjacent research areas; • Editorials; • Book reviews; • Communications. 	
WoS Results	
Without exclusion criteria	10294
With exclusion criteria	6089
Access date	20.12.2023
Selected papers	3000

Source: developed by the authors

In the first query of the WoS database, 10 294 scientific publications were identified, including academic articles, editorials, book reviews and communications. Thus, to obtain a focused and relevant research sample, several inclusion and exclusion criteria were applied to filter the publications. Papers were selected based on their alignment with the research topic 'financial communication', including financial transparency, sustainability, corporate governance, the use of digital technologies and the impact of crises on communication processes. Thus, the inclusion criteria targeted papers falling within the relevant research areas, namely: Economics, Business, Business Management and Business Finance, as well as taking the form of scientific and research papers. The exclusion criteria eliminated publications in adjacent research fields as well as editorials, book reviews and communications. After applying these filters, the number of publications was reduced from 10 294 to 6 089. Subsequently, in order to increase the efficiency of the analysis, the 6,089 publications were sorted according to two main criteria: relevance to the research topic and number of citations, the latter being an important indicator of impact and recognition of the work in the scientific community. The number of citations was used as a quantitative indicator to measure the academic recognition and influence of the papers in the scientific community, prioritizing papers with a high number of citations as they indicate a high importance in the literature. According to Melega (2022), "the number of citations is an important characteristic in assessing the quality of a paper, validating the importance of the research topic and highlighting the impact it has had on scientific output". At the same time, in order to maintain a balance, more recent papers with a high thematic potential and reflecting new research directions were also included. After applying the inclusion and exclusion criteria, the articles were analyzed with the VOSviewer and Bibliometrix software, following the principle of co-occurrence keyword relevance for the field of financial communication. And to make sure that the selected papers corresponded to the analyzed context "the evolution of financial communication", a manual evaluation of the articles was also carried out, following their contribution to the understanding of the evolution of financial communication in different periods. For example, articles published before 2010 provided insight into communication practices in stable periods, while articles in the period 2020-2023 were key to understanding the adaptation of financial communication in recent crises. Thus, after applying all the filters, out of a total of 6,089 publications, only 3,000 scholarly publications were included in the final analysis, representing a sufficiently concentrated and relevant sample that reflects a thematic and temporal diversity appropriate to the research.

Results

Economic-financial communication has an essential role in business development and for the socio-economic and cultural development of an economy, this being the binder that makes the

connection between all business participants: investors, state, customers, suppliers, banks, etc. Communication ensures the development of a free business environment based on market principles, which ensure fair and equal competition for all involved parties. Whether we are talking about the state, investors, suppliers, customers, or civil society - all these categories of information users need access to information that presents real data, is correlated to the current context, and is adapted to their needs.

Economic-financial communication has become a key imperative in establishing economic relations, knowing real progress regarding the distribution and codification of information so that all stakeholders can access qualitative, comparable, and reliable information. In order to make the communication process more efficient, the professional bodies in the field, together with the national and international bodies in the field, have developed various methodologies, rules, and standards that indicate how to write financial statements (the main economic-financial communication tool) and how to disclose information. The evolution of information disclosure and communication methods has undergone significant transformations over time. It has transitioned from conventional modes of communication to digitally integrated approaches facilitated by technologies like ERP and blockchain. Consequently, this evolution has given rise to novel terminologies in the economic lexicon, which are instrumental in facilitating the communication process and aligning it with the dynamic changes in technology, economy, society, and politics.

As presented in Figure 1, economic-financial communication emerges as the central pivotal element, bridging and interconnecting all the key concepts explored and elaborated by researchers.

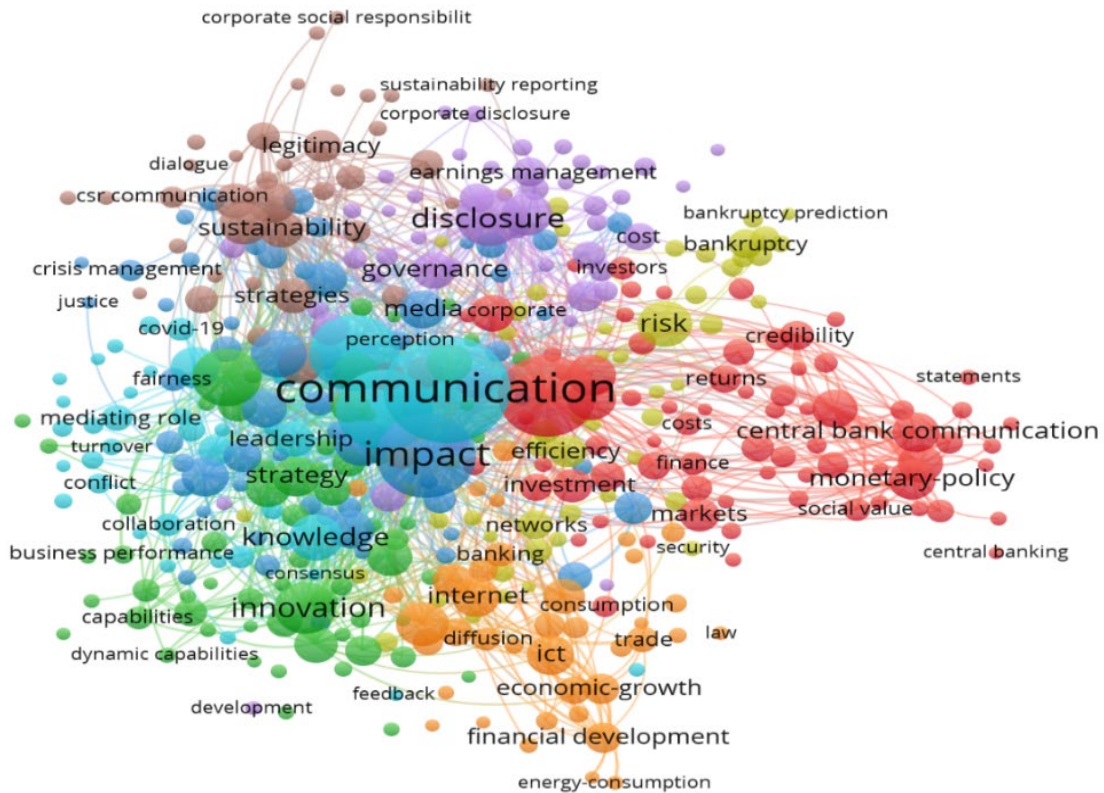


Figure 1 Network of financial communication clusters according to Web of Science

Source: developed by the authors with the VOSviewer software

Each cluster in Figure 1 is assigned a certain colour that allows them to be easily differentiated to identify the cluster of membership of each keyword, as well as the intensity of the correlation between them and the basic concept of financial communication analyzed in this paper. This is given by the value of the links attribute and the total link strength attribute that reflects the frequency of connections of a certain term with other terms, respectively their strength (Eck & Waltman, 2018; Grosu et al., 2023). If we analyze the figure above, it can be seen that the most prominent representation belongs to the concept of communication, a fact that is also consistent

with the values of its links (325) and the total link strength (1523) attributes, positioning it in first place out of the 417 analyzed. This is also due to the fact that financial communication represents the key concept by which scientific papers were searched on the Web of Science platform (Ignat et al., 2020). Communication is mainly assimilated to financial reporting based on transparency and credibility, with reference to financial sustainability, which is determined by a series of actions and advisory activities whose objective is not to make an immediate profit, focusing mainly on three dimensions: environmental, social and economic. In other studies, the focus is placed especially on the role of environment, social, and governance reports in the communication process with different categories of stakeholders, as they are also a tool for obtaining transparency related to the company's financial performance (Oncioiu et al., 2020; Cosmulese et al., 2019; Ciubotariu et al., 2021).

In the analyzed context, it can also be observed that the concept of corporate social responsibility (CSR) presents some significant values of the links (260) and total link strength (732) attributes, as well as that of financial performance with a value of 195 for the links attribute and 718 for the total link strength attribute, which suggests a significant correlation between them and the concept of communication, a fact also demonstrated by many other papers in the literature that emphasize their interconnectivity.

The results of the research carried out by Myšková and Hájek (2019) show that companies that communicate or report CSR-related information achieve a much higher financial performance than others that do not report such information, as they have a competitive advantage by offering sustainable strategies of business and contributing to building ethical and responsible organizational behaviour (Padilla-Lozano & Collazzo, 2023). This fact is also demonstrated by the results obtained by Alshehhi, Nobanee and Khare (2018), which show that 78% of the 132 analyzed papers show a positive correlation between the level of sustainability communicated or reported by companies and their level of financial performance. This highlights the fact that in the literature, the relationship between CSR, communication, and financial performance suggests a high level of interconnectivity, especially in the current context when business models are increasingly oriented toward sustainable concepts and strategies for the development and expansion of activities.

Also, a significant connection between the concept of innovation and financial performance can be observed, as the causal relationship between them is frequently debated in the literature. One of the papers that analyzes the impact of the innovation capacity of processes and markets on the financial performance of companies is that of Muharam, Andria and Tosida (2020). The result of their study shows that innovation capabilities can indeed influence the financial performance of companies and highlight a positive relationship between them, which means that as a company's innovation level increases, its performance level will also increase. Likewise, the results obtained by Chouaibi (2021) demonstrate that innovation activities have a significant positive effect on the financial performance of the analyzed Tunisian companies, these being identified as critical variables of the return on assets and equity, the most innovative companies being able to obtain an upward trend of economic and financial profitability that presented a secure financial position.

We believe that in the current context, one cannot talk about the innovation of financial communication without also mentioning the concept of digitalization (links: 35, total link strength: 37) whose related fields can be identified among the keywords of the scientific papers considered within the bibliometric analysis, among which we can mention the concept of the blockchain (links: 16, total link strength: 19), artificial intelligence (links: 25, total link strength: 26), big data (links: 30, total link strength: 33), digital economy (links: 24, total link strength: 40), fintech (links: 51, total link strength: 68), social media (links: 150, total link strength: 375), etc. Although it does not present a very high level of interconnectivity with the other domains represented in the cluster map in Figure no. 1, these fields related to digitalization are of significant interest to researchers. This is particularly accentuated starting from 2018 and 2019 - an aspect reflected in Figure no. 2 - when papers in the field of financial communication interconnected with concepts in the digitalization field like those mentioned above began to be published in the literature. According to Schepinin and Bataev (2019), the financial sector ranks second after telecommunications companies in terms of investments in

innovative information and communication technologies, one of the reasons being that in the current context of massive digitalization, the profitability of the banking sector in the form and structure known before these initiatives can no longer be considered optimal. This is why the financial sector meets this challenge and develops new Fintech technologies on certain specific segments of the value chain such as currency exchanges, payments, trade, asset management and insurance, loans and others (Ekinici, 2021). Also, Tohang and Lusiana (2023) demonstrated that by using a standardized digital reporting system, financial communication with stakeholders is improved and made more efficient by significantly reducing errors, materializing an optimal level for the qualitative characteristics of financial information, and by high flexibility in the way of completing and presenting the reporting, while a decrease in the cost of capital also takes place.

Achieving financial performance by applying corporate social responsibility policies and strategies, carrying out innovation and digitalization processes, and clearly establishing the channels and parties participating in the financial communication process requires good management (links: 273; total link strength: 958) of all these activities and implicitly of the financial, material, human and intellectual resources within an organization, which in this context suggests that management is a tool used by the management of enterprises to organize and plan their own activities, as well as for the development of sustainable and innovative strategies so that the objectives set for financial performance are achieved.

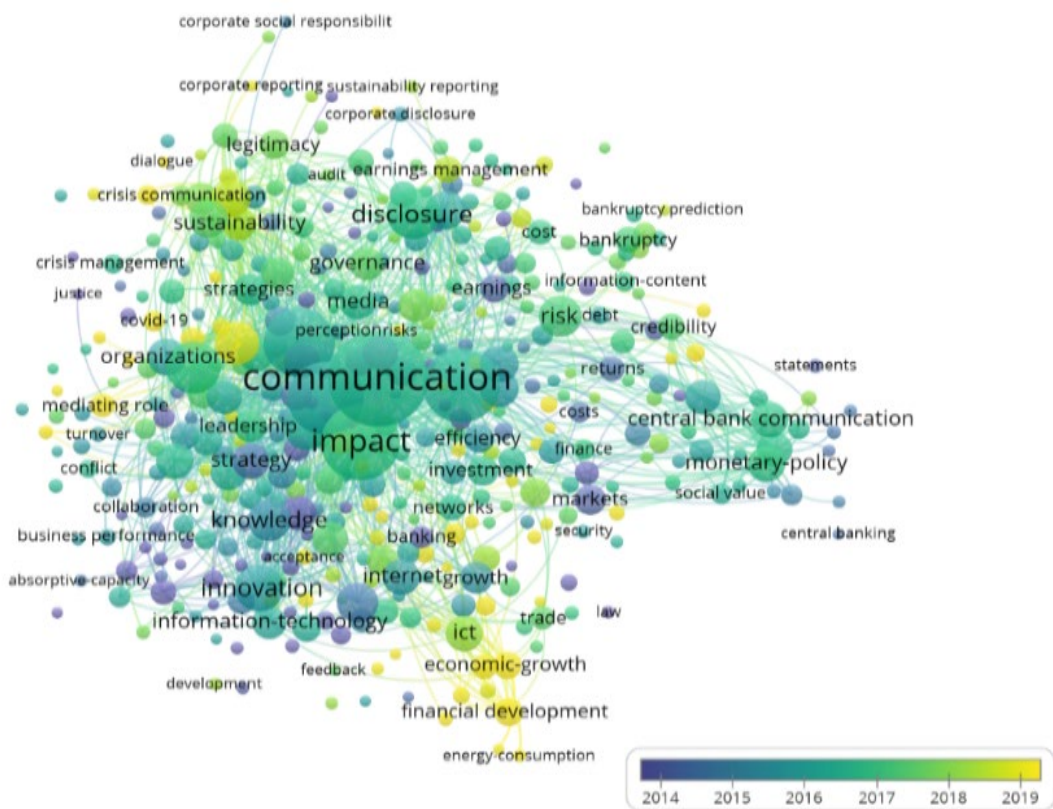


Figure 2 Map of the average publication period of the analyzed financial communication papers according to Web of Science

Source: developed by the authors with the VOSviewer program

Figure 2 above shows an average of the publication years for the papers that were included in this bibliometric analysis, where shades of blue mark older concerns and shades of yellow and green indicate more recent topics. Therefore according to Figure 2, it can be seen that the majority of papers that are interrelated to the field of financial communication were published between 2016-

2018. This shows that this is not a new topic of interest for academia. However, in recent years, different research niches and perspectives have been developed in line with the challenges of globalization and digitalization processes that have increasingly manifested themselves. At the same time, the emergence of topics such as COVID-19 suggests an increased focus on crisis communication in recent years, highlighting the interdependence between leadership, collaboration and impact in challenging contexts. In this sense, nodes related to governance and disclosure are associated with themes such as sustainability and legitimacy, reflecting the importance of transparency in building trust. Other major themes include risk management and monetary policy, which emphasize the need for effective communication by central banks, especially in times of economic instability. In parallel, elements related to innovation and technology, such as information technology, suggest an increasing integration of digital tools into communication strategies.

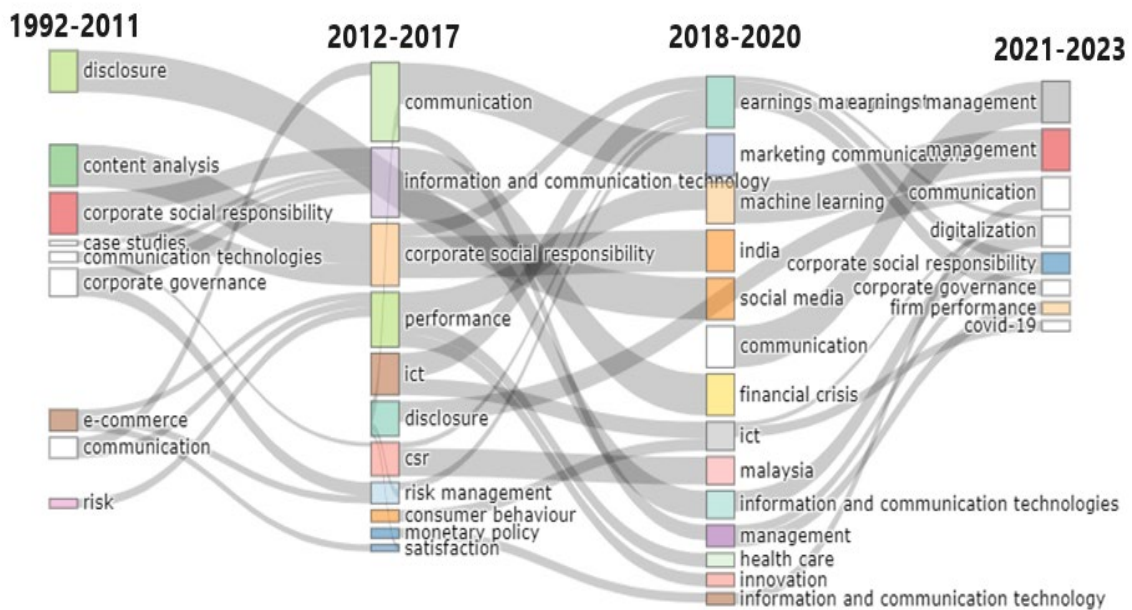


Figure 3 Thematic map evolution

Source: elaborated with Bibliometrix

Economic-financial communication has experienced numerous changes over time, adapting to the evolution of technology and various socio-economic contexts. Thus, according to the data in Figure 3, we can see that in 1992-2011, the role of communication was established by the company's ability to discover information and by the evaluation of corporate social responsibility, communication being an integral part of corporate social responsibility. In the years 2012-2017, the focus was on the adoption of new information technologies in the communication process, considering that through ICT, a higher level of stakeholders' satisfaction can be achieved (Sepehrdoust et al., 2023). During the period of the health and economic crisis in 2020-2023, the role of communication has become central in making investment decisions. Social distancing, as a norm to combat the transmission of the SarsCov-2 virus, emphasized the role of technology in ensuring effective and low-risk communication. In the current period, innovation and digitalization represent key resources in providing an efficient and qualitative process for economic-financial communication. Avram et al. (2016) argue that in the context of globalization and economic, social, and military crises, financial communication must ensure "a constant flow of information, resulting in a dialogue of knowledge between issuers and current and potential investors." Maintaining such a dialogue can only be done by revealing reliable, complete, and real information, which can form the basis for making decisions with minimal risks. In the context of the crisis, the role of financial communication is accentuated considering that the crisis constitutes an element of economic stagnation that leads to the reduction of investment flows and situations of uncertainty. Thus, to regain the trust of the

investors, companies must provide them with more complex information and data, which will ensure a minimum investment risk. In times of crisis, investors are interested not only in the company's financial results but also in their role in mitigating the effects of crises on social, economic, and environmental issues. Research in the literature correlates the company's performance with its ability to disclose information or, more precisely, to communicate. An enterprise that has implemented technologies that contribute to the efficiency of economic-financial communication with stakeholders will register a higher level of trust from investors since current technologies allow the sharing and comparison of data, thus reducing the time for their collection and analysis. The abundance of data and its complexity are not elements of effective communication.

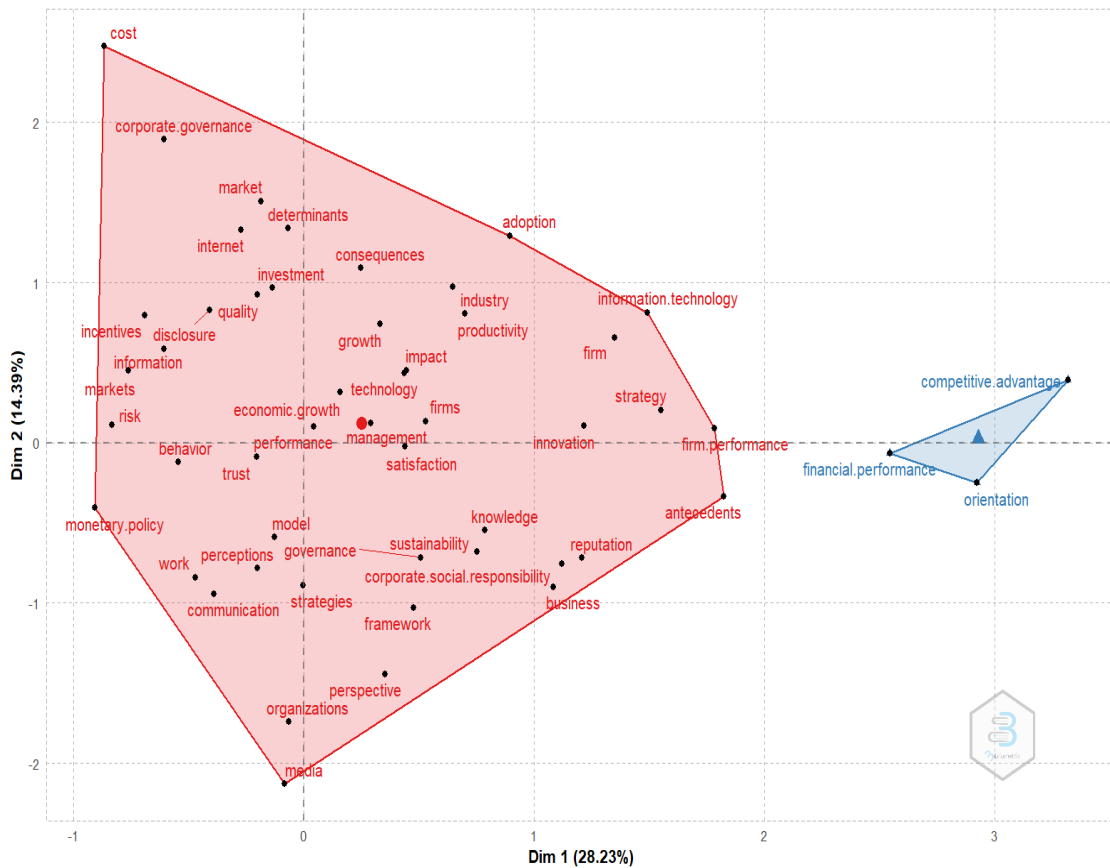


Figure 4 Conceptual structure maps: factorial analysis
Source: elaborated with Bibliometrix

The conceptual map of financial communication (see Figure 4) revolves around key concepts such as sustainability, quality, investment, reputation, information technology, internet, perspective, satisfaction, disclosure, innovation, etc. Practically, financial communication represents the critical element for the reputation of an enterprise, being the one that presents the image of the enterprise (Ignat et al., 2018). The keywords technology, impact, economic growth, performance, and technology are close to the central point of the thematic map, which indicates that these topics represent an increased interest from researchers (Xie et al., 2020). Analyzing the position and distribution of the concepts on the thematic map, we notice that in the literature, financial communication is approached from the perspective of two clusters. The first red cluster (see Figure 4) is the most significant and it includes papers that study the impact of information technologies on financial communication, as well as ensuring the quality of information to make the decision-making process more efficient, together with the sustainability of the enterprise. The second blue cluster reorients the role of financial communication for high performance and its adaptation to ensure competitive development by implementing ERP systems, artificial intelligence, etc. New information

technologies and artificial intelligence are engaged in a process of transformation of the entire financial ecosystem. Practically, artificial intelligence represents a new paradigm of information distribution (Bataev et al., 2020; Li et al., 2023) with a vital role in the development of managerial culture.

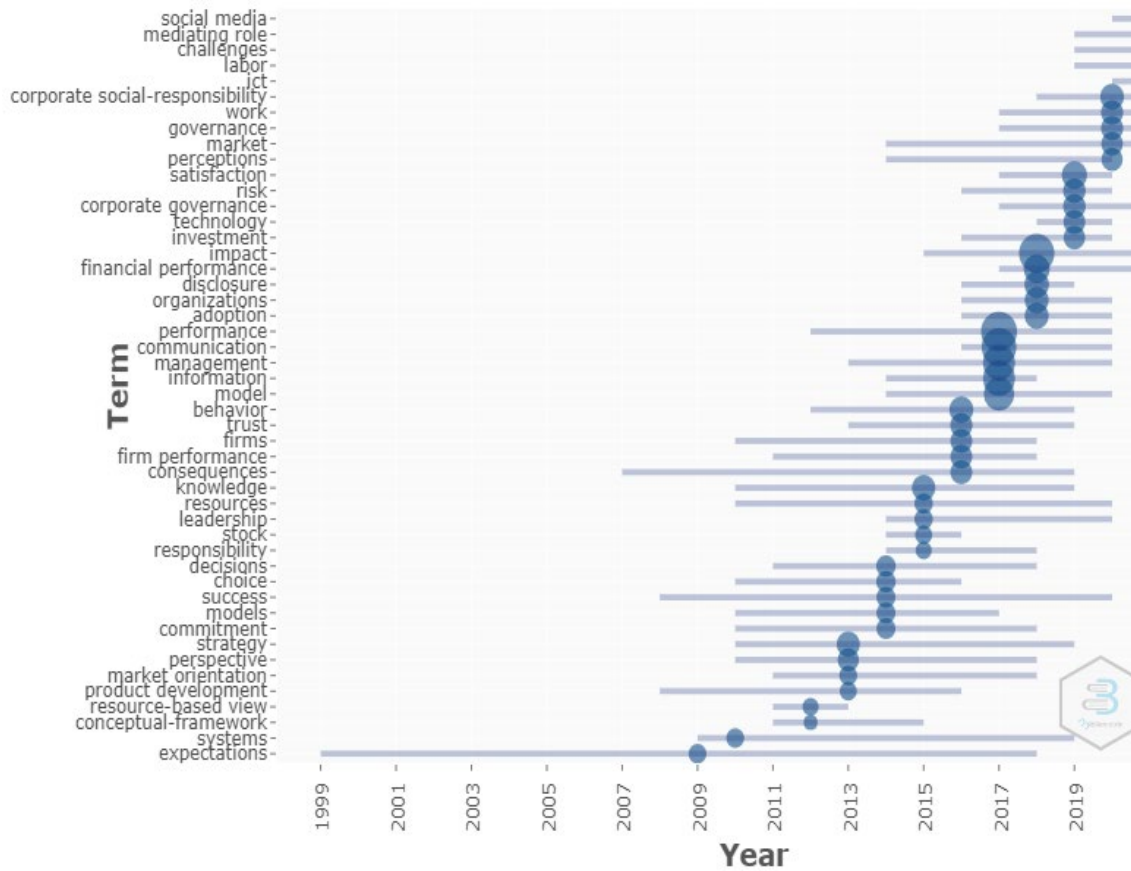


Figure 5 Trend topics

Source: elaborated with Bibliometrix

According to the data in Figure 5, we can say that the culture and economic-financial communication has evolved from one period to another, being strongly influenced by economic, social, political, and environmental crises and, more recently, by the military crisis. During the 1990s, there was a significant discussion surrounding the adoption of an international conceptual framework aimed at ensuring the provision of comparable, trustworthy, and accurate information. This framework was particularly vital during times of economic crisis, as exemplified by the period between 2008 and 2009. During this crisis, economic-financial communication shifted its focus towards identifying new information models that could furnish investors with a comprehensive dataset, thereby supporting their decision-making process. Fast forward to 2019 through 2021, the global economy encountered the profound impact of the Covid-19 pandemic. During this period, financial communication became increasingly reliant on information technologies to facilitate its dissemination and effectiveness. The level of information disclosure was much higher than in previous periods, with businesses sharing information on corporate financial, social, and environmental performance in hopes of attracting investors. In the current context, the need for information has grown considerably. The health crisis we are still facing today and the energy crisis amplified by the military conflict in Ukraine, has reoriented financial communication towards the distribution of information on sustainability, both from an economic, social, and environmental point of view. The communication tools are pretty vast, as is the amount of information. That is why there is the problem of combining the data and unifying them under different codes so that the time of

processing and evaluating the information is reduced as much as possible. Technology 4.0 is the tool that ensures the transition from traditional financial communication to innovative financial communication.

The new information technologies manage to identify and group information according to the user's need for information, thus creating a profile for each user: investor, customer, supplier, employee, society, etc. An essential role in financial communication in times of crisis is also attributed to social media (Strycharz et al., 2018; Whu, 2023), which represents a platform for the distribution and presentation of information to the general public. According to Donaldson & Preston, (1995), "the media has no financial interest in a company but plays a crucial role in disseminating information and influencing stakeholders such as investors and their decision-making processes." Of course, the credibility of the information presented by social media is relatively low, and the most credible source of information for all users remains the annual financial reports and financial statements of companies. Bushee and Miller (2012) argue that the media is an essential tool for "attracting the attention of investors and managing the performance of listed companies."

Conclusions

Following the connection and interdependence of the concepts identified in the bibliometric analysis, it can be appreciated that the process of financial communication - and not only - within an organization is a complex one, going far beyond the simple form or structure of transmitting information to stakeholders. Effective management of all the processes underpinning financial communication is essential to meet today's demands for sustainability, timeliness, fairness and quality, especially in times of crisis. The research reveals that in periods of economic, social and political stability (pre-crisis), the financial communication process has gradually evolved, emphasizing transparency, credibility and the reduction of information asymmetry. Financial reporting has acted as a bridge between companies and their stakeholders, and this phase has been marked by the adoption of strict financial reporting rules aimed at creating a transparent framework and reducing uncertainties in the decision-making process. In terms of factors that influenced financial communication during the health crisis (2019-2021), it was found that the need to provide up-to-date and relevant information at an accelerated pace, together with the focus on sustainability and corporate social responsibility, became key elements of the communication process. With the COVID-19 pandemic, financial communication has become much more reliant on new technologies, such as digital platforms and standardized reporting, to facilitate the rapid dissemination of information and mitigate investment risks. The crisis has underlined the importance of transparency and flexibility in financial disclosure, which are essential in maintaining investors' trust in times of uncertainty. The health crisis, amplified by the energy, economic and military crises, also revealed several problems in companies' communication with stakeholders, such as lack of transparency and delayed reporting. During this period, financial communication has focused on conveying information on companies' ability to manage the risks associated with the crises and on integrating environmental, social and governance (ESG) dimensions. Relevant influencing factors at this stage have included increased sustainability reporting requirements, but also the need to implement innovative technologies such as blockchain and artificial intelligence to ensure effective financial communication and to reduce information gaps.

In other words, a key objective of all reporting companies that want to improve their communication process with stakeholders is to support innovation in the entire activity, not only from the point of view of new technologies but especially the mentality of managers and employees, to make them open to the intense changes that will take place in a digitalized economy. We can conclude that regardless of the decision-making function held within a company, it is essential for any person to perfect their IT skills and competencies and to identify new ways of communicating

with stakeholders according to their requirements, considering also the effects induced by the multitude of crises that occur on the global economy and rapid adaptation to post-crisis situations.

Therefore, we believe that together with the active involvement of the academic scientific environment, economic operators will be able to respond to the challenges related to the innovation and digitalization of the financial communication process so that the efficiency and quality of communication are ensured, reducing the informational asymmetry and satisfying the stakeholders' interests, both in intense crises and in post-crisis periods.

However, this research also has certain limitations, such as the fact that only scientific publications from the Web of Science database were considered, creating the possibility of the omission of relevant papers that are not indexed in this database. Another limitation of the research is that regional and national differences in regulation and corporate culture were not detailed, which could provide a better understanding of the specifics of financial communication at the local level.

The research has highlighted the complexity and dynamism of financial communication and has charted a clear path for further research expansion by highlighting the current state of knowledge and future trends.

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