IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 27, Issue 5. Ser. 4 (May. 2025), PP 53-66
www.iosrjournals.org

Digital Resilience: How Hard And Soft Skills Are Redefining Finance Professionals

Nadson Lucio De Sousa Carvalho
Bachelor's Degree In Accounting, Federal University Of Ceará, Brazil
MBA In Financial Management, Fundação Getúlio Vargas, Brazil

Abstract:
The present study aims to map and analyze the hard and soft skills considered essential for the future of finance professionals, in light of digital transformations and evolving labor market demands. To achieve this objective, a mixed methodological approach was adopted, combining literature review with empirical research through the application of a structured questionnaire to 203 finance professionals, from different regions, economic sectors, and levels of experience. The collection method included closed and open-ended questions, allowing both quantification and qualification of respondents' perceptions about the most valued competencies and challenges faced for professional development. The main results highlight the centrality of technical skills related to artificial intelligence, machine learning, data analysis, business intelligence, financial modeling, and process automation. Simultaneously, strategic thinking, adaptability, continuous learning, emotional intelligence, and effective communication stand out as the most demanded soft skills. There is a convergence between theory and practice regarding the valuation of these competencies, but also the identification of barriers to skill development, such as lack of time, resources, and strategic guidance. The research also reveals the need for a multidisciplinary and collaborative approach from finance professionals, capable of acting as strategic business partners and agents of organizational transformation. The main implications and contributions of the study lie in providing insights for the development of training policies aligned with technological and behavioral trends, both for professionals, companies, and human resources leaders. By integrating theoretical analysis and empirical data, the work contributes to the advancement of knowledge about the profile of competencies demanded in the financial sector, guiding training and development practices aimed at the sustainability and competitiveness of organizations in the digital era.

Key Word*: Finance, Hard Skills, Soft Skills, Digital Transformation, Digital Resilience.*

Date of Submission: 06-03-2025 Date of Acceptance: 16-03-2025

I. Introduction

The accelerated transformation of the business environment, driven mainly by technological advancement and the growing complexity of markets, has caused profound changes in the financial area of organizations. The current context is marked by the digitalization and automation of processes, by the intensification of data use, and by the strategic repositioning of the financial function, which ceases to be merely operational to assume a consultative role and support for decision-making (Saccol, 2004; Assaf Neto, 2018).

This evolution reflects the need for adaptation of finance professionals, who are now demanded not only for mastery of technical skills but also for behavioral competencies, such as communication, strategic thinking, adaptability, leadership, and emotional intelligence (Gitman & Zutter, 2018; Goleman, 2012).

In this scenario, the relevance of investigating which skills and competencies are essential for the future of the financial profession stands out, considering that the literature points to a convergence between the valuation of hard skills and soft skills, in response to the demands of a dynamic, globalized, and increasingly technology-oriented market (Marr, 2016; Yoshinaga & Castro, 2023).

The emergence of new technologies, such as artificial intelligence, machine learning, and robotic process automation, expands the demand for continuous updating and a proactive stance towards innovation. At the same time, the ability to interpret data, generate strategic insights, and build solid interpersonal relationships becomes a competitive differential for finance professionals, especially in organizational environments that value collaboration and multidisciplinarity (Freeman, 2010; Heckman & Kautz, 2012).

In this scenario of accelerated changes and constant transformations, the concept of "digital resilience" emerges as a fundamental essential skill for finance professionals (Digital US Coalition, 2020). Beyond adapting to current technological changes, digital resilience represents the ability to thrive amid constant disruption, skillfully integrating hard skills with soft skills (Marr, 2016; Yoshinaga & Castro, 2023). This concept goes beyond mere survival in the professional environment; it configures itself as a new paradigm that redefines both the identity and practices of professionals in the financial sector in the 21st century (World Economic Forum,

2020). The ability to adapt to digital changes is reflected in knowing how to incorporate technological innovations to stand out in the market while maintaining and valuing essential human qualities, such as creativity, empathy, and strategic thinking (Gitman & Zutter, 2018; Goleman, 2012).

Given this context, the following research problem emerges: what is the set of technical skills (hard skills) and behavioral skills (soft skills) that proves essential for finance professionals in the face of technological and organizational transformations in the sector, and how can these competencies be developed to ensure the sustainability and competitiveness of organizations in the future?

The relevance of the investigation is justified by the existing gap in the literature on the integration between technical and behavioral skills in the financial sector, as well as by the need to guide both professionals and organizations regarding development and training strategies aligned with future trends. Thus, this article aims to map and analyze the technical and behavioral skills and competencies considered essential for the future of finance professionals, in light of digital transformations and new demands of the labor market. To this end, the following specific objectives are established: a) identify the main hard skills and soft skills demanded of finance professionals in the context of digital transformation; b) analyze the impact of technological innovations, such as artificial intelligence and automation, on the functions and competencies required of finance professionals; and c) investigate the main barriers and preferences related to the continuous training of finance professionals, proposing recommendations for the development of these competencies.

To achieve these objectives, the article is structured as follows: after this introduction, the theoretical framework is presented, which discusses the transformation of finance, the relevant technical and behavioral skills, as well as the challenges related to professional training. Next, the adopted methodology is detailed, a mixed method approach, combining literature review and empirical research with professionals from the sector.

Subsequently, the results obtained are presented and discussed, highlighting the profile of respondents, the most valued competencies, the impact of digital transformation, and the main barriers to training. Finally, the main conclusions of the study are synthesized, accompanied by practical recommendations for professionals and organizations, limitations of the research, and suggestions for future investigations. Thus, it is expected to contribute to the advancement of knowledge about the development of competencies in the field of finance, offering subsidies for the training of professionals able to face the challenges and opportunities of the future of the profession.

II. Theoretical Framework

The Transformation of Finance

The financial area has undergone profound transformations in recent decades, driven mainly by the advancement of technology and the growing need to adapt to an increasingly dynamic and competitive business environment. Three central aspects stand out in this transformation process: the digitalization and automation of processes, data-based decision-making, and the strategic role assumed by the financial area in contemporary organizations.

The digitalization and automation of financial processes represent a significant milestone in the modernization of companies. Such innovations allow the replacement of manual and repetitive tasks by computerized systems, providing greater agility, precision, and security in the management of financial information. Tools such as Enterprise Resource Planning systems (ERP) and accounts payable and receivable automation software have become indispensable for operational efficiency, reducing human errors and freeing professionals for higher value-added activities (Saccol, 2004).

In parallel, data-based decision-making emerges as a competitive differential. Access to large volumes of data (big data) and the development of advanced analytical tools allow financial managers to obtain more precise and well-founded insights to guide the strategic decisions of the organization (Marr, 2016). Data analysis, combined with artificial intelligence and machine learning, enables the identification of trends, the prediction of scenarios, and the mitigation of risks, promoting more proactive and assertive financial management (Oliveira, 2024).

In this context, the strategic role of the financial area gains relevance. No longer just an operational and control area, finance assumes consultative functions and support for decision making, actively participating in planning and defining the direction of the business (Assaf Neto, 2018). The finance professional, therefore, needs to develop analytical, technological, and communication competencies, becoming a fundamental agent for the sustainability and organizational growth (Gitman & Zutter, 2018).

Essential Hard Skills

In the context of digital transformation and the growing complexity of the business environment, technical skills, known as hard skills, become increasingly determinant for the performance of professionals in the financial area. Mastering competencies related to data analysis, financial modeling, use of digital platforms,

automation, and information security is fundamental to ensure efficiency, reliability, and innovation in the financial processes of organizations.

Data analysis and business intelligence (BI) stands out as one of the most valued competencies today. The use of BI tools allows the collection, processing, and visualization of large volumes of data, facilitating the identification of patterns, trends, and opportunities for improvement (Marr, 2016). Professionals with skills in data analysis are capable of transforming raw data into strategic insights, contributing to more precise and well-founded decision making (Sharma et al., 2014).

Financial modeling and forecasting constitute another essential skill. It is the ability to build mathematical and financial models that allow simulating future scenarios, evaluating risks, and estimating returns on investments (Assaf Neto, 2014). The mastery of modeling techniques, such as sensitivity analysis, discounted cash flow, and budget projections, is indispensable for financial planning and the sustainability of organizations (Gitman & Zutter, 2018).

Knowledge of ERPs and digital finance platforms is also essential. Enterprise Resource Planning (ERP) systems centralize and automate financial processes, promoting greater control, transparency, and operational efficiency (Saccol et al., 2021). Additionally, familiarity with digital financial management platforms, such as treasury software, bank reconciliation, and expense control, expands the capacity for real-time monitoring and analysis.

Automation, RPA (Robotic Process Automation), and Artificial Intelligence revolutionize the execution of financial tasks, eliminating error-prone repetitive activities, while freeing professionals for more analytical and strategic functions. The mastery of these technologies is increasingly required, as it allows for significant gains in productivity, cost reduction, and increased precision in operations (Oliveira, 2024; Yoshinaga & Castro, 2023).

Finally, cybersecurity and risk management assume a central role in the face of the digitalization of financial processes. The protection of sensitive data and information against cyber threats is a growing demand, requiring professionals to have knowledge about security policies, cryptography, compliance, and operational risk management. The adoption of good cybersecurity practices is essential to ensure the integrity and trust in financial operations (Yoshinaga & Castro, 2023).

Essential Soft Skills

In the current business scenario, marked by rapid technological transformations and the growing complexity of markets, behavioral competencies, known as soft skills, assume a central role in the performance of professionals in the financial area. Such competencies go beyond technical mastery, becoming fundamental for the construction of high-performance teams, for the promotion of collaborative environments, and for the achievement of the strategic objectives of organizations (Lima, 2025).

Communication and storytelling stand out as essential skills. The finance professional needs to be able to translate technical information and complex data into clear, accessible, and persuasive narratives, adapting the message to the profile of different internal and external audiences. The use of financial storytelling contributes to engaging stakeholders, facilitating the understanding of results, and supporting evidence-based decision making (Kaplan & Norton, 2004).

Strategic thinking and business acumen are equally indispensable. More than executing operational tasks, the finance professional is expected to understand the business context, anticipate trends, and contribute to the definition of the organization's strategic guidelines. This competency involves the ability to analyze scenarios, identify opportunities, and propose innovative solutions aligned with institutional objectives (Gitman & Zutter, 2018).

Adaptability and continuous learning have become fundamental requirements in the face of constant technological and regulatory changes. The professional must be willing to learn permanently, update themselves in relation to the best market practices, and adapt quickly to new contexts and challenges. This posture favors resilience and the ability to deal with situations of uncertainty and ambiguity (Senge, 2006).

Leadership and the ability to influence are increasingly valued competencies, not only for management positions but at all levels of the organization. Leading implies inspiring, motivating, and guiding teams to achieve results, as well as positively influencing decisions and behaviors. Leadership based on ethical values and trust building strengthens the engagement and cohesion of teams (Maxwell, 2011).

Collaboration and business partnering represent another critical dimension of soft skills. The financial environment demands constant interaction with different areas of the company, clients, suppliers, regulatory bodies, and investors. The ability to build solid relationships, based on mutual respect and cooperation, is fundamental for the success of initiatives and for institutional reputation (Freeman, 2010).

Finally, emotional intelligence emerges as a key element for conflict management, for decision-making under pressure, and for balance in interpersonal relationships. Emotionally intelligent professionals can recognize and manage their own emotions, as well as understand and influence the emotions of others, promoting healthier and more productive work environments (Goleman, 2012).

Training and Preparation for the Future

The continuous training and preparation of finance professionals are determining factors for the sustainability and competitiveness of organizations in the current context, characterized by rapid technological, regulatory, and market changes. The development of technical and behavioral competencies, combined with the adoption of innovative learning methods and the overcoming of structural barriers, proves to be essential for building solid careers that are adaptable to the demands of the future (Penhaki, 2021).

Continuous professional development assumes a central role in this process. The willingness to be constantly updated, through specialization courses, certifications, workshops, participation in events and communities of practice, is fundamental to stay aligned with trends and best practices in the financial sector (Senge, 2006). In addition, organizational encouragement for learning, through corporate education programs and partnerships with educational institutions, contributes significantly to the improvement of teams and talent retention (Aroeira, 2023).

Regarding preferred learning methods, there is a growing appreciation of active and personalized approaches, such as problem-based learning, experiential learning, and the use of interactive digital platforms (Meister, 2018). Microlearning, massive open online courses (MOOCs), and individualized development paths have stood out for their flexibility, accessibility, and ability to adapt to the specific needs of professionals (Ruas, 2014).

However, barriers to the development of competencies persist, such as time limitations, resistance to change, lack of financial resources, and difficulty accessing quality content (Meister, 2018). In addition, information overload and the lack of alignment between market demands and content offered by educational institutions can hinder the effectiveness of training processes (Penhaki, 2021). Overcoming such challenges requires the engagement of all stakeholders involved (professionals, organizations, and training institutions) in building collaborative learning environments aligned with the demands of the world of work.

Regarding gaps in the literature and future research directions, there is a need to deepen studies on the effectiveness of different teaching methodologies applied to the financial context, as well as on the impact of new technologies on the development of competencies (Meister, 2018). In addition, investigations are recommended to explore the integration between technical and behavioral competencies, the evaluation of results of training programs, and the identification of innovative strategies to promote lifelong learning (Penhaki, 2021).

III. Methodology

The present study adopted a mixed methodological approach, combining literature review with the application of a structured questionnaire, in order to provide a comprehensive and in-depth analysis about the technical skills (hard skills) and behavioral skills (soft skills) demanded of finance professionals. The option for the mixed method approach is justified by the need for data triangulation, allowing the integration of theoretical information consolidated in the literature with empirical perceptions collected from finance professionals, according to recommendations by Creswell and Clark (2018). In addition, the mixed design favors the understanding of both quantitative and qualitative aspects of the investigated phenomenon, expanding the robustness and validity of the results obtained (Gil, 2019).

The research is also characterized by its exploratory and descriptive nature. The exploratory nature is evidenced in the search to identify and understand the main skills and competencies valued in finance, a topic still incipient in literature. The descriptive nature manifests itself with the intention to map, in detail, the profile of respondents, their perceptions and experiences related to the development and application of these competencies in their professional daily life (Vergara, 2016).

The data collection method consisted of a structured questionnaire, elaborated from the main theoretical references on technical and behavioral skills in the field of finance. The questionnaire was composed of 25 closed questions, which allowed the quantification of participants' perceptions about the importance, frequency, and challenges related to the essential skills and competencies for the future of finance, as well as the identification of trends and patterns in the universe researched. Complementarily, 2 open questions were included, aimed at collecting qualitative comments, allowing respondents to freely express opinions, experiences and suggestions, enriching the analysis with data of a subjective and interpretative nature.

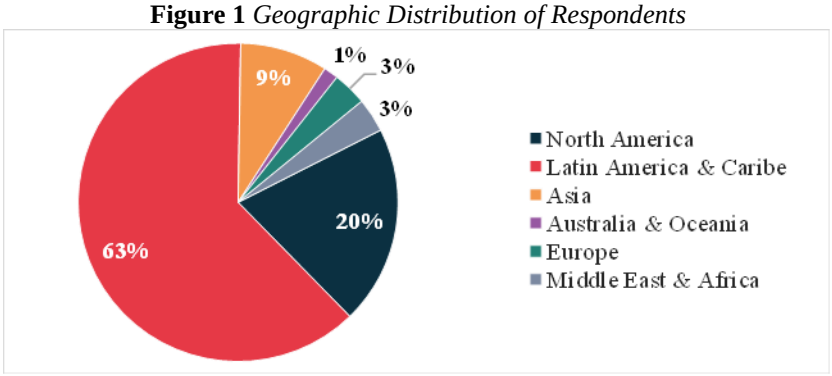
The data collection was carried out through the dissemination of the questionnaire on digital platforms, including professional social networks, discussion groups, aimed at finance professionals. The questionnaire was available in Portuguese and English versions, with the aim of expanding the reach and diversity of the sample. In total, 203 valid responses were obtained, distributed among different economic sectors and levels of experience, which contributed to the representativeness and comprehensiveness of the results. The dissemination strategy sought to ensure the heterogeneity of the sample and contemplate different professional profiles, aligning with good research practices in applied social sciences (Sampieri et al., 2013).

IV. Results And Discussion

Respondents Profile

Figure 1 shows the regional composition of research participants regarding essential skills and competencies for the future of finance professionals. It is observed that the largest portion of respondents is concentrated in the Latin America and Caribbean region, representing 63% of the total sample, which highlights the predominance of this group in the study and suggests a significant influence of the sociocultural and economic characteristics of this region in the analysis of behavioral competencies in finance.

Figure 1 *Geographic Distribution of Respondents*

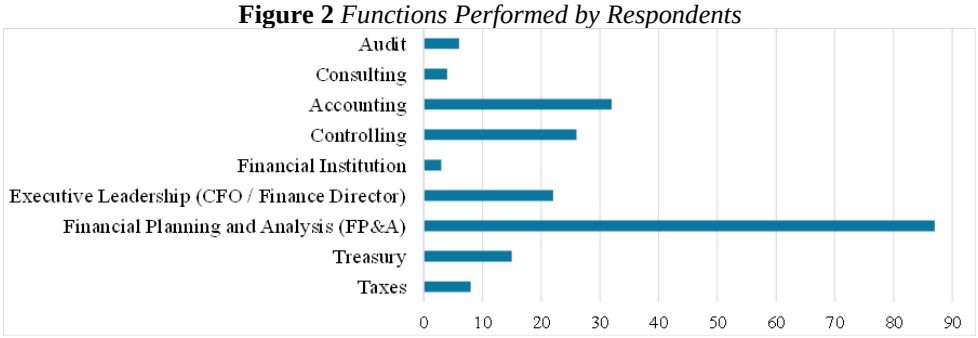


Note. Created by the author.

Next, the participation of North America stands out, corresponding to 20% of respondents, demonstrating the relevance of this global economic pole in the context of the research. Asia appears as the third largest representation, with 9%. Other regions, such as Europe, Australia and Oceania, as well as the Middle East and Africa, present more discrete percentage participations, varying between 1% and 3%, which suggests a geographic diversity, although less expressive, of professionals inserted in different market realities.

Regarding the distribution of research participants according to their areas of activity in finance, there is a significant predominance of Financial Planning and Analysis (FP&A) professionals who represent the largest contingent of the sample, highlighting the centrality of these activities in the researched universe. There is also an expressive participation of professionals from the Accounting and Controlling areas, indicating the relevance of these functions for understanding technical and behavioral skills in the financial context.

Figure 2 *Functions Performed by Respondents*

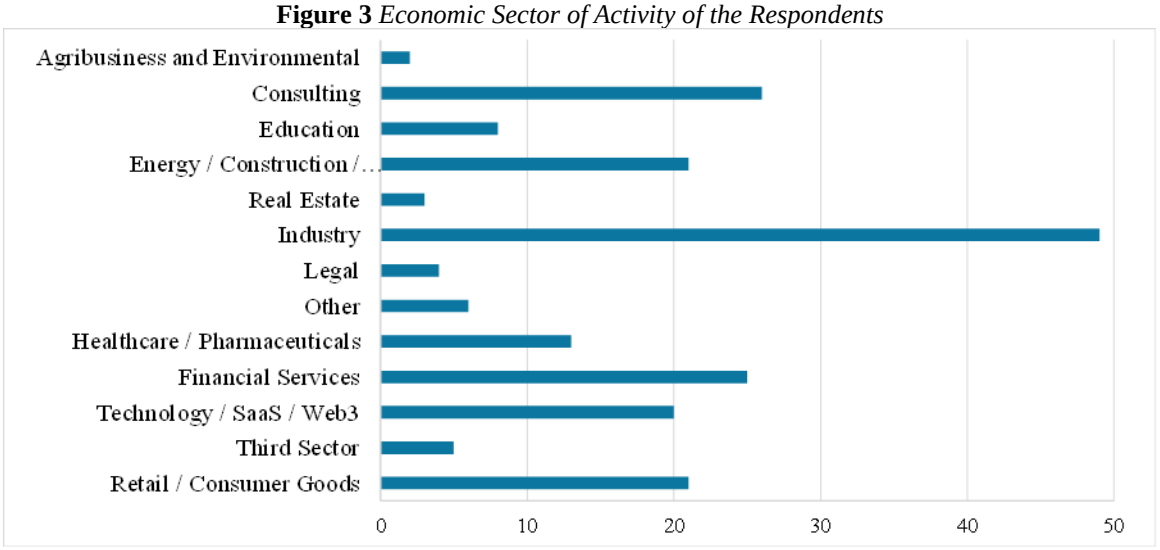


Note. Created by the author.

Other functions, such as Treasury, Executive Leadership (CFO/Finance Director), Audit, also have representation, although on a smaller scale, suggesting the presence of respondents in strategic and leadership positions, whose performance demands a high degree of interpersonal and management competencies. The other areas appear with more modest participation, reflecting the diversity of existing functions in the sector, but also the concentration of the sample in certain segments. This distribution shows that the research contemplates a wide range of professional positions, covering from operational functions to leadership positions, which contributes to the robustness and validity of the results obtained on technical and behavioral financial competencies essential for the future of finance.

Regarding the economic segments in which the finance professionals participating in the research are inserted, the evidenced diversity allows a comprehensive analysis of the behavioral skills demanded in different organizational contexts. It is observed that the sectors of Industry, Consulting, Financial Services, Retail/Consumer Goods stand out for concentrating most of the respondents, reflecting the relevance of these areas in the composition of the sample and, possibly, in the dynamics of the contemporary financial market.

Figure 3 *Economic Sector of Activity of the Respondents*



Note. Created by the author.

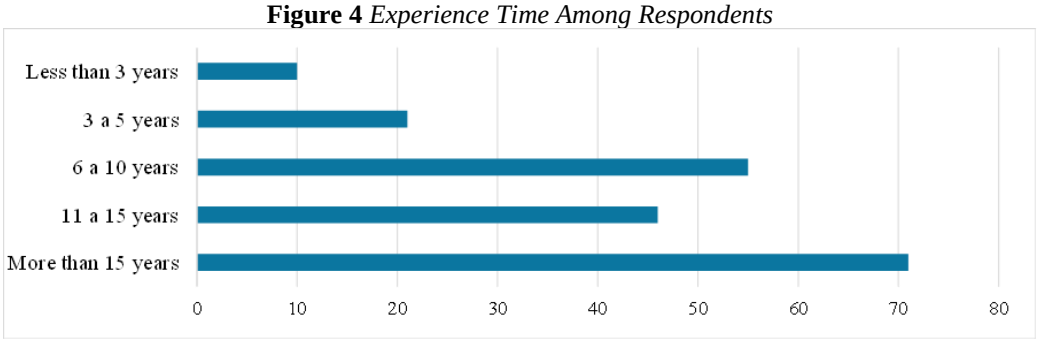
The expressive participation of the industrial sector points to the importance of interpersonal and management skills in production environments, where operational complexity requires professionals capable of leading teams, resolving conflicts, and adapting to constant changes. Similarly, the significant presence of professionals in Financial Services and Consulting reinforces the centrality of communication, critical thinking, and negotiation capacity in the effective performance of these functions, especially in the face of demands for innovation and relationships with clients and partners.

The Technology sector also presents high representation, which suggests a growing appreciation of soft skills in environments marked by digital transformation and the need for integration between technical and business areas. The Health/Pharmaceutical area, in turn, stands out for its regulatory complexity and the importance of multidisciplinary teamwork, aspects that require differentiated technical and behavioral skills from finance professionals working in this segment. Other sectors, such as Energy, Construction, and Engineering, equally relevant in the sample, highlight the transversality of soft skills, regardless of the field of activity, indicating that competencies such as adaptability, resilience, and leadership are valued in multiple contexts.

In addition to these more prominent sectors, figure 3 reveals the participation of respondents from areas such as the Third Sector, Education, Legal, Real Estate, among others.

Regarding the length of experience of the finance professionals participating in the research, it is observed that the sample is predominantly composed of individuals with considerable experience time, with the range of more than 15 years concentrating the largest number of respondents, followed by the categories of 6 to 10 years and 11 to 15 years of experience. This predominance of professionals with consolidated trajectory shows that the study on technical and behavioral skills is based on the perceptions of individuals who have experienced different organizational scenarios and challenges over time, which enhances the robustness and depth of the analyses on hard and soft skills in the financial environment.

Figure 4 *Experience Time Among Respondents*



Note. Created by the author.

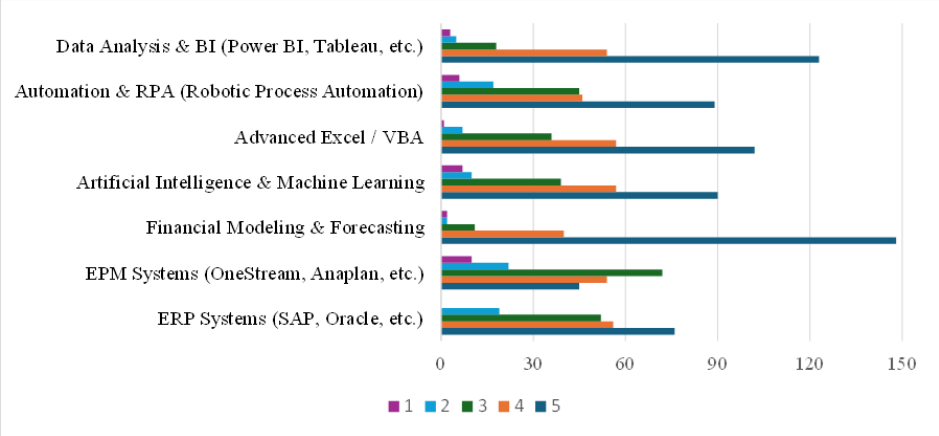
The significant presence of respondents with more than 15 years of experience, as well as those with 6 to 10 years, suggests that the development and appreciation of interpersonal and socio-emotional competencies become increasingly evident with career advancement, especially in positions that demand leadership, decision-

making, and team management. On the other hand, there is a less expressive participation of professionals with less than 3 years of experience, which may indicate both a lower insertion of newcomers in the financial labor market in the sample and a possible trend of greater interest or availability to respond to the survey among more experienced professionals. The intermediate ranges, such as 3 to 5 years of experience, also present relevant representation, demonstrating that the study contemplates different stages of professional maturity.

Most Demanded Technical Skills

Figure 5 clearly presents the distribution of finance professionals' perceptions regarding the importance attributed to different technical skills in the exercise of their functions. It is observed, from the data represented by horizontal bars, that there is a marked prevalence of the attribution of the maximum grade (5) for certain skills, evidencing a trend of valuation of specific competencies to the detriment of others less highlighted.

Figure 5 *Technical Skills Most Demanded by Respondent (Grade 5 Maximum and 1 Minimum)*



Note. Created by the author.

Among the listed skills, "Financial Modeling & Forecasting" emerges as the most valued, with the highest concentration of responses in grade 5, signaling the recognition of its fundamental importance in the financial sector. The expressive frequency of attribution of the maximum grade to this competency reveals the respondents' perception that mastery of these techniques is determinant for professional practice. In fact, leading consultants such as McKinsey and EY consistently emphasize that financial modeling and accurate forecasting are crucial for informed strategic decision-making and for obtaining competitive advantage (EY, n.d.; McKinsey, 2020). These practices allow organizations not only to predict future scenarios with greater accuracy but also to evaluate risks, optimize resource allocation, and improve overall business performance, being seen as vital to navigate the complexity of the current economic environment. Next, the skill of "Data Analysis & BI (Power BI, Tableau, etc.)" also stands out, with a large number of responses in grades 4 and 5, indicating the growing demand for professionals capable of extracting value from large volumes of data and using advanced analytical tools to support financial management.

Other technical competencies, such as "Artificial Intelligence & Machine Learning", "Automation & RPA (Robotic Process Automation)", and "Advanced Excel/VBA", present a more balanced distribution among grades 3, 4, and 5, which suggests that, although they are considered relevant, they do not reach the same level of priority as the previously mentioned skills. This can be interpreted as a valuation of traditional competencies, but with recognition that the current context requires a progressive alignment with technological innovations. Similarly, skills related to the use of EPM systems (OneStream, Anaplan, etc.) and ERP systems (SAP, Oracle, etc.) appear with less frequency in the higher grades, which may indicate that, although important for the operation and integration of financial processes, they are not seen as strategic differentials in the face of the advancement of emerging technologies.

The analysis of the figure therefore shows a clear orientation of finance professionals towards the adoption and deepening of competencies linked to data analysis and automation, in line with the demands of an increasingly digital and data-driven market. The predominance of these skills in the highest-grade responses suggests that constant updating and technical development in these areas constitute essential factors for the competitiveness and sustainability of careers in finance. The distribution of responses further reinforces the importance of an adaptable professional profile, capable of integrating traditional knowledge with new technologies, keeping pace with the transformations that characterize the contemporary financial environment.

Regarding the technical skills considered most critical for the next decade, the survey, which sought to identify the most relevant technical competency for the future of the area, shows that "Artificial Intelligence &

Machine Learning" emerges as the predominant choice among respondents, accumulating the highest number of mentions, which highlights the recognition of its central relevance for the future of the profession. This choice reflects the recognition of the transformative impact of these technologies, which have the potential to revolutionize not only process automation but also predictive analysis and the generation of strategic value in financial organizations.

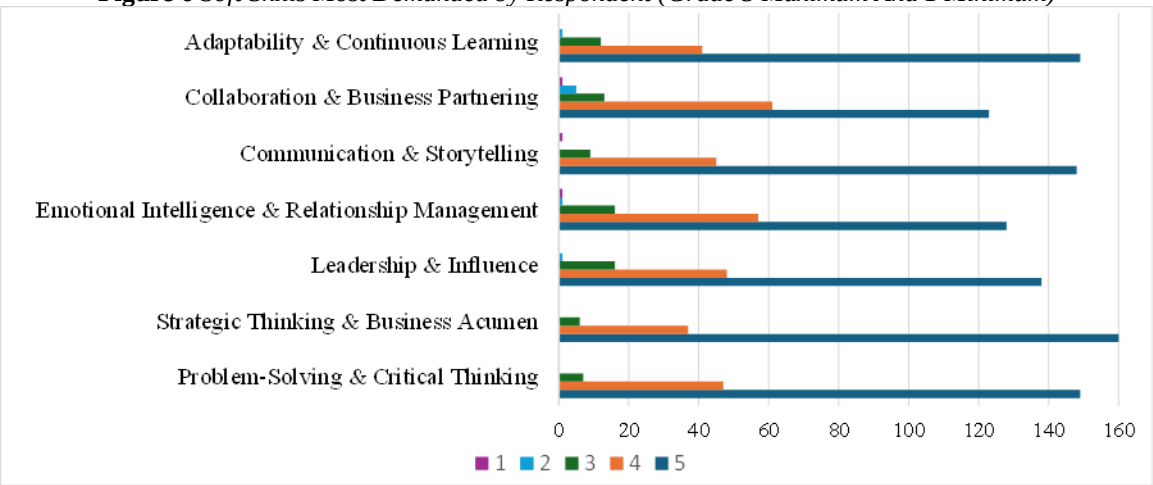
"Data Analysis & Business Intelligence (BI)", represented by tools such as Power BI and Tableau, emerges as the second most critical skills for the next decade, which indicates the growing importance of analytical capacity and mastery of technological solutions that allow extracting, processing, and interpreting data on a large scale. The total responses related to data analysis and BI reinforces the idea that the financial sector is increasingly data-driven, and that the ability to transform large volumes of information into actionable insights will be a fundamental competitive differential. Authors such as Marr (2022) emphasize that the ability to interpret complex data and transform it into strategic information is a fundamental competency for contemporary finance professionals.

Other technical competencies, such as "Financial Modeling & Forecasting" and "Automation & RPA (Robotic Process Automation)", also appear among the most mentioned, although on a smaller scale. The presence of these skills suggests that, in addition to emerging technologies, there is still room for the recognition of traditional competencies and process automation, essential for operational efficiency and for the elaboration of robust financial strategies. Skills such as advanced use of Excel/VBA, ERP and EPM systems, despite being mentioned, present significantly lower frequency, which may indicate a trend of gradual replacement of these tools by more integrated and intelligent solutions, aligned with the digital transformation of the sector. Willcocks, Lacity, and Craig (2017) demonstrate that robotic process automation has promoted substantial gains in productivity and cost reduction in financial departments, while freeing professionals for higher value-added activities.

Most Valued Soft Skills

Figure 6 illustrates the distribution of responses from finance professionals regarding the perceived degree of demand for different soft skills. It is observed that, in general, all the competencies analyzed received a significant concentration of evaluations in grade 5, indicating a widely positive perception and a high valuation of these skills in the contemporary professional context of finance. According to Klaus (2010), soft skills have become increasingly determinant for professional success, especially in areas that require high analytical capacity and adaptability, such as the financial sector. Among the soft skills evaluated, "Strategic Thinking and Business Acumen", "Adaptability and Continuous Learning", and "Problem Solving & Critical Thinking" stand out, which received the highest number of maximum evaluations, highlighting the centrality of these competencies for the performance and success of professionals in the area.

Figure 6 *Soft Skills Most Demanded by Respondent (Grade 5 Maximum And 1 Minimum)*



Note. Created by the author.

The competency "Strategic Thinking & Business Acumen" emerges as the most demanded, reflecting the need for professionals capable of aligning their operational activities with the broad vision of the business, anticipating trends and contributing to organizational sustainability and growth. Next, "Adaptability & Continuous Learning" appears as a fundamental skill, which can be interpreted as a response to the volatility and constant transformations of the financial environment, requiring professionals to take a proactive stance towards innovation and constant learning. Similarly, "Emotional Intelligence & Relationship Management" is highly valued,

indicating that, in addition to technical competencies, the ability to manage emotions and build solid interpersonal relationships is seen as essential for career success. Heckman and Kautz (2012) show that non-cognitive competencies, such as resilience, proactivity, and problem-solving capacity, directly impact the performance of professionals and the generation of value for organizations.

The data reveals that "Adaptability & Continuous Learning" figures among the competencies most valued by respondents, highlighting its role as a fundamental pillar of digital resilience in the financial context. This capacity to absorb changes and continuously evolve represents the core of the professional redefinition observed in the sector. Digital resilience, manifested through the integration between technical and behavioral competencies (Digital US Coalition, 2020), emerges as a determining factor for the sustainability of careers in an environment characterized by constant technological disruptions and the growing complexity of markets.

Other competencies, such as "Communication & Storytelling" and "Collaboration & Business Partnership", also present high rates of maximum evaluation, highlighting the importance of teamwork, clear communication, and the ability to transmit complex information in an accessible way. "Leadership & Influence" and "Emotional Intelligence & Relationship Management" complete the picture, equally recognized as relevant, albeit with slight variation in the distribution of evaluations in relation to the others.

When comparing these results with the specialized literature, there is a significant convergence between the perception of finance professionals and recent academic findings on the topic. Regarding the perception of the future impact of these skills, the analysis of open responses reinforces the highlight for "Strategic Thinking & Business Acumen", frequently pointed out as the soft skill with the greatest impact for the success of finance professionals in the next 10 years. This result suggests a convergence between current demand and future expectations, signaling that the ability to think strategically and understand the business context will be increasingly determinant for the performance of professionals in the area.

Impact of Digital Transformation

The analysis of the data presented reveals a predominantly convergent perception among finance professionals regarding the impact of emerging technologies on financial functions in the next decade. The overwhelming majority of respondents believe that these technological innovations will increase operational efficiency and reduce manual work, highlighting an expectation of positive transformation in routine processes and in the productivity of financial teams. This understanding suggests an appreciation of the potential of technologies to optimize repetitive tasks, free up professionals' time, and direct efforts towards higher value-added activities.

Another point widely highlighted in the responses is the conviction that, parallel to the increase in efficiency, new technologies will require finance professionals to develop skills in data and technology. This concern reflects a collective awareness that traditional technical competencies will no longer be sufficient. It will be essential for professionals to improve their analytical, digital, and data interpretation capabilities to remain relevant and competitive in the job market. This trend indicates a growing appreciation of soft skills related to adaptability, continuous learning, and critical thinking, increasingly essential elements in contemporary financial performance.

According to Davenport and Kirby (2016), automation and artificial intelligence tend to profoundly transform professional functions, especially in areas that deal intensively with data and structured processes, as is the case with finance. The authors highlight that, although there is a potential for replacing routine tasks, there is also an expansion of possibilities for strategic action, requiring professionals to have superior cognitive skills and interpersonal competencies. This perspective is corroborated by Brynjolfsson and McAfee (2014), who argue that the digitalization of financial processes does not eliminate the need for the human factor but requires a reorientation of competencies towards areas such as critical analysis, creativity, and complex problem solving.

Additionally, a significant portion of participants envision the creation of new financial functions that do not yet exist, associating digital transformation with the emergence of new professional profiles and specializations. This data reinforces the idea that technological advancement not only modifies the nature of existing functions but also drives innovation and career diversification within the financial area. Authors such as Arntz, Gregory, and Zierahn (2016) suggest that, although automation may lead to the extinction of certain functions, there is a trend of requalification and migration of professionals to new areas, especially those that require human judgment and socio-emotional competencies.

Given the above, it can be affirmed that the research results consistently dialogue with the academic literature, reinforcing the understanding that technology, far from being an exclusively substitutive factor, acts as a catalyst for structural changes that value both technical competencies and behavioral skills.

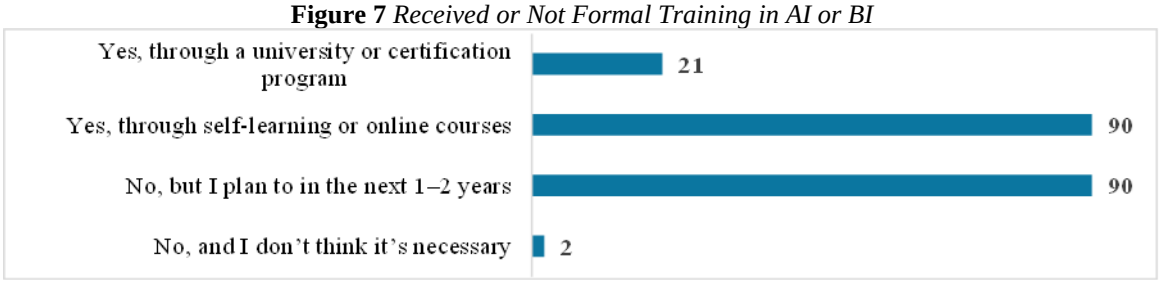
Training: Preferences and Barriers

Regarding the panorama on training in skills focused on data analysis, AI and BI, it is observed that a significant portion of respondents have not yet received formal training in these areas, but express intention to

seek qualification in the next one to two years. This intention is notably expressed through a preference for online courses, such as those offered by platforms like Coursera, Udemy, and LinkedIn Learning, in addition to internationally recognized certifications, such as CFA, CMA, CPA, and FPAC. Traditional academic programs, such as MBA and master's degrees, also figure among the preferred learning methods, albeit on a smaller scale, indicating that the flexibility, practicality, and cost-benefit of online courses have been determining factors for professionals' choice.

Regarding learning methods, this trend reflects a search for more accessible, flexible training solutions aligned with the dynamic routine of finance professionals. Carnevale and Smith (2013) highlight that professional certifications have consolidated themselves as valued credentials in the financial sector, functioning as signals of competence and updating to employers. The preference for online courses and certifications finds support in research that points to distance learning as an efficient alternative for continuous training, especially for its flexibility and capacity for rapid updating in the face of market changes (Bates, 2015).

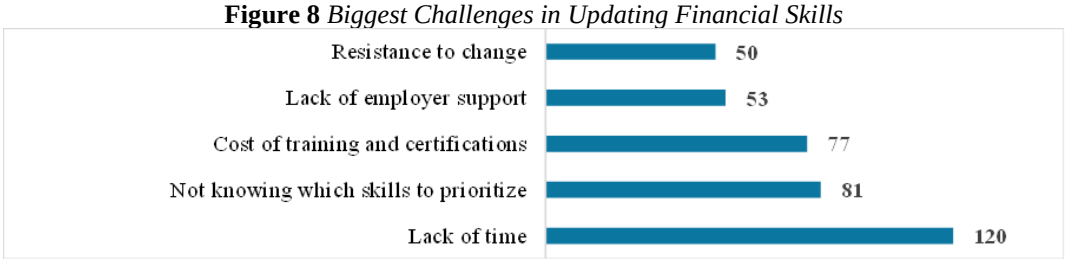
Figure 7 *Received or Not Formal Training in AI or BI*



Note. Created by the author.

The main challenges faced with updating skills are recurrent and point to structural and organizational barriers. Lack of time is by far the most cited obstacle, followed by identifying which skills should be prioritized, indicating some uncertainty or lack of strategic guidance regarding the most relevant competencies for the future of the profession. In addition, the cost of training and certifications, which suggests that, despite the interest in qualifying, many professionals run into limitations imposed both by workload and by personal or institutional budget constraints.

Figure 8 *Biggest Challenges in Updating Financial Skills*



Note. Created by the author.

Other challenges mentioned include resistance to change, lack of employer support, and, to a lesser extent, the perception that training is not necessary. According to Kotter (2012), this resistance is frequently pointed out as an obstacle to the adoption of new technologies and innovative practices, requiring not only technical training but also change management and organizational culture initiatives.

The analysis of the data allows inferring that, although there is a clear awareness about the importance of updating and continuous development, finance professionals still face a challenging context for the acquisition of new competencies. The predominance of preference for online courses and certifications reflects the need for educational solutions that reconcile quality, flexibility, and accessible cost. On the other hand, the identified barriers suggest the need for more robust institutional policies to encourage continuous training, as well as strategies that guide professionals in choosing skills most aligned with the technological and behavioral transformations of the financial area.

Qualitative Analysis of Open-ended Responses

The descriptive analysis of the responses presented shows an impressive consensus on the need for constant adaptation of finance professionals in the face of technological transformations and market changes. Most participants emphasize the importance of continuous learning, highlighting that mastery of new technological tools, such as artificial intelligence, process automation, data analysis, and business intelligence, has become an indispensable differential. Tools such as Power BI, Python, SQL, and RPA are frequently cited as

essential for strategic performance in the area, signaling a clear appreciation of digital and analytical competencies.

In addition to technical skills, soft skills assume a central role in the recommendations. Attributes such as adaptability, resilience, effective communication, emotional intelligence, critical thinking, leadership capacity, and strategic vision stand out. Respondents recognize that, although technology optimizes and automates operational tasks, the value of the finance professional increasingly resides in their ability to interpret data, generate strategic insights, influence decisions, and build solid interpersonal relationships, both within and outside the organization. This emphasis on behavioral competencies is aligned with what recent academic literature points out, which highlights the growing appreciation of soft skills in the contemporary corporate environment, especially in sectors impacted by digital transformation. According to Hecklau et al. (2016), the digitalization of productive and administrative processes intensifies the need for skills such as flexibility, collaboration, and problem solving, making these competencies as relevant as technical mastery.

Another recurring point is the relevance of mastering English and other languages, especially for those who aim to work in multinational environments. Updating on global trends, regulations, compliance, ESG (environmental, social, and governance), blockchain, and fintechs, is also seen as fundamental to maintain competitiveness and relevance in the sector. As highlighted by the World Economic Forum (2020), fluency in foreign languages and knowledge about global trends are factors that differentiate professionals in an increasingly internationalized and dynamic market, where the boundaries between technical, regulatory, and strategic areas become increasingly tenuous.

Participants warn that the future of finance will be marked by a convergence between technology, strategy, and business intelligence, requiring from the professional a multidisciplinary and collaborative approach. The increasing automation of routine tasks frees up time for deeper analyses and for the development of innovative solutions, making it essential that the professional knows how to use this time productively, focusing on activities that add value to the business. This perspective finds support in studies such as that of Davenport and Harris (2017), which highlight the strategic role of the finance professional in generating value through advanced data analysis and integration between areas, emphasizing that process automation should be seen as an opportunity for more consultative and less operational performance.

There is also a concern with the balance between personal and professional life, mental health, and ethics, suggesting that sustainable career growth depends not only on technical and behavioral improvement but also on care for individual and collective well-being. In this sense, authors such as Goleman (2013) reinforce that emotional intelligence and attention to well-being are essential components for sustainable performance and effective leadership, especially in environments of high pressure and constant change, as is the case of the financial sector.

Finally, it is emphasized that the search for certifications, specializations, and strategic networking is recommended strategies for continuous development. The finance professional of the future is described as one who combines robust technical knowledge, developed interpersonal skills, and the ability to adapt quickly to changes, acting as a strategic business partner and agent of organizational transformation. Thus, the research shows that, to thrive in a dynamic and competitive scenario, it is essential to invest in both hard skills and soft skills, adopting a mindset open to learning and constant innovation. This vision is corroborated by studies such as that of Frey and Osborne (2017), which indicate that professions with high intensity of cognitive and interpersonal tasks have greater resilience in the face of automation, reinforcing the importance of the integral development of the finance professional to face the challenges of the future.

Synthesis: Theory vs. Practice

The comparative analysis between the theory presented in the theoretical framework and the empirical results obtained in this study reveals points of convergence and divergence relevant to the understanding of the essential competencies for the finance professional in the contemporary context. The literature recurrently highlights the importance of technical skills (hard skills), such as data analysis, mastery of technological tools, automation, and cybersecurity (Gitman & Zutter, 2018; Oliveira, 2024), as well as behavioral competencies (soft skills), such as communication, critical thinking, adaptability, and leadership (Goleman, 2012; Heckman & Kautz, 2012; Marr, 2016).

The data collected from finance professionals largely corroborate the trends pointed out by the theory, especially regarding the increasing appreciation of digital competencies and analytical capacity. It is observed, however, that practice highlights specific nuances, such as the predominance of the need for constant updating in the face of rapid technological evolution and the difficulty of access to quality training, aspects less emphasized in the literature. Below, Table 1 synthesizes the comparison between the competencies highlighted in theory and those most evidenced in practice by the survey respondents:

Table 1 *Comparison Between Competencies Highlighted in Theory and in Practice*

Competencies	Emphasis in Theory	Emphasis in Practice (Research)	Observations
Data Analysis	High	High	Strong convergence
Process Automation	High	Medium	Practice limited by resources
Cybersecurity	Medium	Low	Lower practical perception
Communication	High	High	Strong convergence
Critical Thinking	High	Medium	Less expressive practice
Adaptability	Medium	High	Practice highlights more than theory
Leadership	Medium	Medium	Moderate convergence
Emotional Intelligence	Medium	Medium	Moderate convergence
Continuous Updating	Medium	High	Practice emphasizes more than theory

Note. Created by the author.

According to the data presented, it is found that competencies such as data analysis and communication show strong alignment between theory and practice, being widely recognized as essential both by the literature and by professionals. On the other hand, process automation and cybersecurity, although theoretically highlighted, encounter practical barriers related to the limitation of technological resources and the lack of specific training in the researched organizations (Marr, 2016).

It is also highlighted that adaptability and the need for continuous updating were more emphasized by respondents than by the literature, suggesting that the accelerated pace of transformations in the financial sector imposes additional challenges to professional practice. Such findings indicate the importance of institutional policies aimed at permanent training and the development of behavioral competencies, in addition to encouraging the use of emerging Technologies.

V. Conclusion

The present study sought to map and analyze the essential skills and competencies for the future of finance professionals, considering the impact of technological and organizational transformations in the sector. The results obtained show the convergence between theory and practice regarding the increasing appreciation of both technical skills and behavioral competencies, reflecting the demands of an increasingly dynamic, digitalized, and data-driven market. Among the hard skills, the centrality of artificial intelligence and machine learning stands out, followed by data analysis, business intelligence, financial modeling, process automation, and mastery of digital platforms. Such competencies are seen as indispensable for operational efficiency, precision of analyses, and generation of strategic value, corroborating the literature that points to the need for continuous updating in the face of technological innovations.

In the scope of soft skills, the study revealed that competencies such as strategic thinking, business acumen, adaptability, continuous learning, emotional intelligence, and relationship management are widely recognized as determinants for the success of finance professionals. Effective communication, collaboration capacity, leadership, and complex problem solving also stand out, demonstrating that the competitive differential of the future resides in the integration between technical mastery and the development of interpersonal skills. It is also observed that adaptability and the search for constant updating were more emphasized in practice than in theory, indicating the accelerated pace of changes and the need for resilience in the face of uncertain scenarios.

The qualitative analysis of the responses reinforces the perception that the finance professional of the future should adopt a multidisciplinary, collaborative, and innovation-oriented approach, acting as a strategic business partner and agent of organizational transformation. The mastery of English and other languages, attention to global trends, and concern with topics such as ESG and compliance emerge as relevant differentials for performance in multinational and complex regulatory environments. In addition, the importance of balance between personal and professional life, mental health, and ethics is highlighted, fundamental elements for sustainable performance and effective leadership.

It is concluded that "digital resilience" is fundamental for the future of finance professionals, manifesting itself in the ability to balance the application of new technologies with the convergence between advanced technical competencies and behavioral skills (Digital US Coalition, 2020). This integration redefines the financial professional, requiring the combination of adaptability and strategic thinking with the mastery of tools such as AI and data analysis (Gitman & Zutter, 2018; Marr, 2016; Yoshinaga & Castro, 2023). Organizations that foster this resilience will be better positioned to navigate uncertainty and lead in a dynamic future (World Economic Forum, 2020), promoting a metamorphosis in the professional identity of the sector.

Regarding practical recommendations, for finance professionals, it becomes imperative to invest in the integrated development of hard and soft skills, adopting a mindset open to continuous learning and innovation. The search for recognized certifications, specializations in emerging technologies, and participation in strategic networking networks are recommended paths to maintain competitiveness and relevance in the sector. It is also fundamental to cultivate behavioral competencies such as adaptability, emotional intelligence, resilience, and

communication, which are increasingly valued in complex and constantly transforming organizational environments.

For companies and leaders of human resources and training and development, it is recommended to implement robust institutional policies to encourage continuous training, focusing on training programs that integrate technical and behavioral content. The offer of personalized development paths, the stimulus to experiential learning, support for obtaining certifications, and the promotion of collaborative and innovative environments are strategies that contribute to the attraction, retention, and development of talents. In addition, it is essential to overcome structural barriers, such as the limitation of time and resources, promoting flexibility and alignment between market demands and the content offered by educational and training institutions.

Regarding the limitations of the study, the fact that the sample is concentrated mainly in Latin America and the Caribbean stands out, which may restrict the generalization of results to other regional and cultural contexts. The predominance of professionals with more experience may also influence the perception of the competencies demanded, suggesting the need for complementary investigations with professionals at the beginning of their careers. In addition, the research was based on self-perceptions, which may introduce subjective biases in the assessment of skills and challenges faced.

In view of these limitations, it is recommended that future research expand the geographic diversity and profiles of respondents, including different career stages and economic sectors. It is also suggested to deepen studies on the effectiveness of innovative teaching and training methodologies in the financial context, as well as the analysis of the impact of institutional policies for competency development on organizational performance. Investigations that explore the integration between technical and behavioral competencies, the longitudinal evaluation of the results of training programs, and the identification of strategies to promote lifelong learning can contribute significantly to the advancement of knowledge in the area.

References

[1] Assaf Neto, A. (2014). Finanças Corporativas E Valor (7ª Ed.). Atlas.
[2] Assaf Neto, A. (2018). Mercado Financeiro (14ª Ed.). Atlas.
[3] Arntz, M., Gregory, T., & Zierahn, U. (2016). The Risk Of Automation For Jobs In OECD Countries: A Comparative Analysis. OECD Social, Employment And Migration Working Papers, (189). Https://Doi.Org/10.1787/5jlz9h56dvq7-En
[4] Aroeira, T. (2023). Liderança, Gestão De Pessoas E Estratégia: Reflexões E Propostas Práticas (Vol. 1). Editora Dialética.
[5] Bates, A. W. (2015). Teaching In A Digital Age: Guidelines For Designing Teaching And Learning. Tony Bates Associates Ltd.
[6] Brynjolfsson, E., & Mcafee, A. (2014). The Second Machine Age: Work, Progress, And Prosperity In A Time Of Brilliant Technologies. W. W. Norton & Company.
[7] Carnevale, A. P., & Smith, N. (2013). Workplace Basics: The Skills Employees Need And Employers Want. Human Resource Development International, 16(5), 491-501. Https://Doi.Org/10.1080/13678868.2013.821267
[8] Creswell, J. W., & Clark, V. L. P. (2018). Pesquisa De Métodos Mistos (3ª Ed.). Penso.
[9] Davenport, T. H., & Harris, J. G. (2017). Competing On Analytics: The New Science Of Winning. Harvard Business Review Press.
[10] Davenport, T. H., & Kirby, J. (2016). Just How Smart Are Smart Machines? MIT Sloan Management Review, 57(3), 21.
[11] Davenport, T. H., & Ronanki, R. (2018). Artificial Intelligence For The Real World. Harvard Business Review, 96(1), 108-116.
[12] Digital US Coalition. (2020). Building A Digitally Resilient Workforce: Creating On-Ramps To Opportunity. Https://Digitalus.Org/Wp-Content/Uploads/2020/06/Digitalus-Report-Pages-20200602.Pdf
[13] EY. (N.D.). Caterpillar's Journey To Improved Financial Forecasting. Acessado Em 26 De Abril De 2025, De Https://Www.Ey.Com/En_Us/Insights/Consulting/How-Caterpillar-Is-Using-Technology-On-Its-Journey-To-Improve-Financial-Forecasting
[14] Freeman, R. E. (2010). Strategic Management: A Stakeholder Approach. Cambridge University Press..
[15] Frey, C. B., & Osborne, M. A. (2017). The Future Of Employment: How Susceptible Are Jobs To Computerization? Technological Forecasting And Social Change, 114, 254-280. Https://Doi.Org/10.1016/J.Techfore.2016.08.019
[16] Gil, A. C. (2019). Métodos E Técnicas De Pesquisa Social (7ª Ed.). Atlas.
[17] Gitman, L. J., & Zutter, C. J. (2018). Princípios De Administração Financeira (14ª Ed.). Pearson..
[18] Goleman, D. (2012). Inteligência Emocional (45ª Ed.). Objetiva.
[19] Goleman, D. (2013). Foco: A Atenção E Seu Papel Fundamental Para O Sucesso. Objetiva.
[20] Hecklau, F., Galeitzke, M., Flachs, S., & Kohl, H. (2016). Holistic Approach For Human Resource Management In Industry 4.0. In Procedia CIRP (Vol. 54, Pp. 1–6). Elsevier BV. Https://Doi.Org/10.1016/J.Procir.2016.05.102
[21] Heckman, J. J., & Kautz, T. (2012). Hard Evidence On Soft Skills. In Labour Economics (Vol. 19, Issue 4, Pp. 451–464). Elsevier BV. Https://Doi.Org/10.1016/J.Labeco.2012.05.014
[22] Kaplan, R. S., & Norton, D. P. (2004). Mapas Estratégicos: Convertendo Ativos Intangíveis Em Resultados Tangíveis. Elsevier.
[23] Klaus, P. (2010). Communication Breakdown. California Job Journal, 28(1248), 1-9.
[24] Kotter, J. P. (2012). Leading Change. Harvard Business Review Press.
[25] Lima, F. A. A., Oliveira, P. H. D., Pereira, F. A., & Cunha, J. V. A. (2025). Competências Do Controller: Uma Análise Das Hard E Soft Skills.
[26] Marr, B. (2016). Big Data In Practice: How 45 Successful Companies Used Big Data Analytics To Deliver Extraordinary Results. Wiley.
[27] Marr, B. (2022). Data Strategy: How To Profit From A World Of Big Data, Analytics And The Internet Of Things (2ª Ed.). Kogan Page.
[28] Maxwell, J. C. (2011). As 21 Irrefutáveis Leis Da Liderança (10ª Ed.). Thomas Nelson Brasil.
[29] Mckinsey & Company. (2020). Bringing A Real-World Edge To Forecasting. Https://Www.Mckinsey.Com/Capabilities/Strategy-And-Corporate-Finance/Our-Insights/Bringing-A-Real-World-Edge-To-Forecasting
[30] Meister, J. C. (2018). The Future Workplace Experience: 10 Rules For Mastering Disruption In Recruiting And Engaging Employees. Mcgraw-Hill Education.

[31] Oliveira, P. M. F., Silva, A. C. L., Santos, M. R., & Ferreira, L. B. (2024). Inteligência Artificial Aplicada À Gestão Financeira.
[32] Penhaki, J. R. (2019). Soft Skills Na Indústria 4.0 [Dissertação De Mestrado, Universidade Tecnológica Federal Do Paraná]. Repositório Institucional Da UTFPR. Http://Repositorio.Utfpr.Edu.Br/Jspui/Handle/1/4275
[33] Ruas, R. L., Antonello, C. S., Boff, L. H., Becker, G. V., Dutra, J. S., & Zen, A. C. (2014). A Dinâmica Das Competências Organizacionais E A Contribuição Da Aprendizagem: Um Estudo De Caso No Setor Bancário. Revista Alcance, 21(4), 612-649.
[34] Saccol, A. Z., Macadar, M. A., Pedron, C. D., Liberali Neto, G., & Cazella, S. C. (2004). Avaliação Do Impacto Dos Sistemas ERP Sobre Variáveis Estratégicas De Grandes Empresas No Brasil. Revista De Administração Contemporânea, 8, 9-34. Https://Doi.Org/10.1590/S1415-65552004000100002
[35] Sampieri, R. H., Collado, C. F., & Lucio, P. B. (2013). Metodologia De Pesquisa (6ª Ed.). Penso.
[36] Senge, P. M. (2018). A Quinta Disciplina: A Arte E Prática Da Organização Que Aprende. Best Seller.
[37] Sharma, R., Jones, S., & Kraemer-Mbula, E. (2014). Enabling Business Intelligence In Smes: A Structured Literature Review. Electronic Journal Of Business Research Methods, 12(1), 56-68.
[38] Vergara, S. C. (2016). Projetos E Relatórios De Pesquisa Em Administração (16ª Ed.). Atlas.
[39] Willcocks, L., Lacity, M., & Craig, A. (2017). Robotic Process Automation: Strategic Transformation Lever For Global Business Services? Journal Of Information Technology Teaching Cases, 7(1), 17-28. Https://Doi.Org/10.1057/S41266-016-0016-9
[40] Digital US Coalition. (2020). Building A Digitally Resilient Workforce: Creating On-Ramps To Opportunity. Https://Digitalus.Org/Wp-Content/Uploads/2020/06/Digitalus-Report-Pages-20200602.Pdf
[41] World Economic Forum. (2020). The Future Of Jobs Report 2020. WEF. Https://Www.Weforum.Org/Publications/The-Future-Of-Jobs-Report-2020/
[42] Yoshinaga, C. E., & Castro, F. H. (2023). Inteligência Artificial: A Vanguarda Das Finanças. GV-Executivo, 22(3). Https://Doi.Org/10.12660/Gvexec.V22n3.2023.89911