



# **TECHNOLOGICAL ARTICLE**

# Challenges and opportunities for chief financial officers in the Brazilian information technology sector

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#### **ABSTRACT**

The Brazilian IT sector faces complex challenges and strategic opportunities in the current context of digital transformation. This study investigates factors influencing the sector's activities in Brazil, raising concerns, challenges, and opportunities. Based on content and thematic analysis of data collected from 20 interviews with IT experts and C-level managers, the research identified seven critical factors, obtaining significant insights for C-level managers, decision-makers, policymakers, researchers, and other industry experts. The results offer practical contributions regarding corporate conflicts, concession operations, research and development, intellectual property, and production sharing, with the potential to enhance best practices and generate value across diverse business settings. Additionally, the findings provide conceptual contributions by presenting novel ideas and establishing a basis for future research.

KEYWORDS: Digital transformation. Information Technology. Challenges. Strategic opportunities.

# Desafios e oportunidades para *chief financial officer*s no setor de tecnologia da informação brasileiro

#### **RESUMO**

No contexto da transformação digital, em seu cenário atual, o setor de tecnologia da informação brasileiro está fadado a enfrentar desafios bastante complexos e oportunidades estratégicas também. O presente estudo investigou os fatores que influenciam a atividade no Brasil, levando a preocupações, desafios e oportunidades para prosperar. Considera 20 entrevistas com

especialistas, incluindo gerentes de alto nível. Assim, foram identificados sete fatores críticos por meio da análise de conteúdo e temática. Este estudo exclusivo fornece insights significativos para gerentes de nível C, tomadores de decisão, formuladores de políticas, pesquisadores e outros especialistas do setor. Os resultados são práticos para conflitos corporativos, operações de concessão, pesquisa e desenvolvimento, propriedade intelectual e compartilhamento de produção, pois podem aprimorar as melhores práticas e gerar valor em diversos ambientes de negócios. Este estudo contribui conceitualmente ao apresentar novas ideias e estabelecer uma base para pesquisas futuras.

PALAVRAS-CHAVE: Transformação digital. Tecnologia da informação. Desafios. Oportunidades estratégicas. Brasil.

# Desafíos y oportunidades para los chief financial officers en el sector de la tecnología de la información brasileño

#### **RESUMEN**

En el contexto de la transformación digital, en su escenario actual, el sector brasileño de TI inevitablemente enfrentará desafíos complejos y oportunidades estratégicas. Este estudio investigó los factores que influyen en la actividad en Brasil, y que generan inquietudes, desafíos y oportunidades para prosperar. El estudio considera 20 entrevistas con expertos, incluyendo directivos de alto nivel. De esta manera, se identificaron siete factores críticos mediante análisis de contenido y temático. Este estudio único proporciona información valiosa para directivos de alto nivel (C-levels), tomadores de decisiones, formuladores de políticas, investigadores y otros especialistas del sector. Los resultados son prácticos para conflictos corporativos, operaciones de concesión, investigación y desarrollo, propiedad intelectual y compartición de producción, ya que pueden perfeccionar las mejores prácticas y generar valor en diversos entornos empresariales. Este estudio contribuye conceptualmente al presentar nuevas ideas y sentar las bases para futuras investigaciones.

PALABRAS CLAVE: Transformación digital. Sector de TI brasileño. Desafíos. Oportunidades estratégicas.

#### INTRODUCTION

The chief financial officer (CFO) function historically emerged from the business need for a financial control system overseer, serving as a principal aide to the chief executive officer (CEO). Moreover, a distinct pattern in the development of CFO abilities has garnered the interest of experts in recent decades. Zorn (2004) asserts that the CFO's job has become pivotal in strategic and operational choices due to increased visibility and authority. Given its critical importance, examining how environmental uncertainties in the Brazilian Information Technology (IT) industry affect the CFO's decision-making process is vital, substantially influencing the organization's present and future. Moreover, the CFO plays a vital role as a transformational change agent, leveraging new technologies to provide strategic plans and decisions, and is the CEO's trusted person (Chandra *et al.*, 2018).

However, although there have been numerous studies in the past, few are available on the variables influencing CFOs' new ventures in IT business activities. The role of CFO in: (a) financial performance, as Ching and Gerab (2012) have also reported; (b) capital budgeting techniques, that is well elaborated by Mendes-Da-Silva and Saito, 2014; (c) organizational structure and agency costs, which are evident from the study of Chaddad and Valentinov, 2017; (d) interaction of CFO with the dynamic of the financial markets, as reported by Benetti et al., 2022; and e) an enterprise strategic ecosystem, as perceived by Buchheit et al., 2019; da Silva Filho, 2018; Favaro, 2001; Walther; Johansson, 1998; and the CFO leadership style, as reported by Bass, 1990; Goleman, 2000; Dias et al., 2023; Dias et al., 2022; Morrow; Stern, 1988; Lippitt, 1999; Maccoby, 1979; Stice, 1954; Bales; Slater, 1955; Benne; Sheats, 1948; Levine Burns, 1978; Pielstick, 2000; Zaccaro; Bader, 2003).

Finally, the present research identifies the elements that will influence the achievements of the CFOs in Brazilian IT organizations, based on the findings of Pereira (2023). To consider the complexity of factors that could affect the accountability of a CFO and the changeable nature of the job, which can't easily be represented in statistical forms like questionnaires, we have chosen qualitative methods of research in the form of focus groups and in-depth interviews.

# THE BRAZILIAN INFORMATION TECHNOLOGY SCENARIO

A What elements influence the selection of Brazil as a focus for research or analysis? The Brazilian IT industry is notable for its large scale but still needs to be appreciated. With a population of 203 million and the ninth-largest economy worldwide, Brazil has attracted significant interest as an investment destination in emerging economies. As a result, Brazil's IT industry has become one of the ten largest IT sectors, with a value of \$45.5 billion in 2021 and anticipated to attain \$46.2 billion in 2022, representing around 2.7 percent of the nation's Gross Domestic Product (ABES, 2022). Therefore, a significant and always-growing IT sector of great significance should be noticed. The market can support unicorn-scale firms and offers feasible opportunities for successful entrepreneurs to penetrate emerging and established markets. The ABES report 2022 indicates that the domestic IT market, excluding export data, performed \$2,790 billion in 2021. Figure 1 illustrates the ten largest worldwide IT markets.

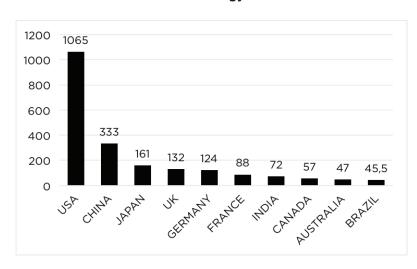


FIGURE 1 Information Technology world market 2021

Source: Adapted from ABES, 2022.

Figure 2 provides a comprehensive depiction of the global distribution of the IT industry, distinguishing between established and rising nations. This distribution is further categorized into three categories, namely software, services, and hardware. The predominant IT sector in Brazil is hardware, accounting for 58 percent of the overall activity. Subsequently, software represents 25 percent, while services constitute 18 percent of the IT industry in the country.

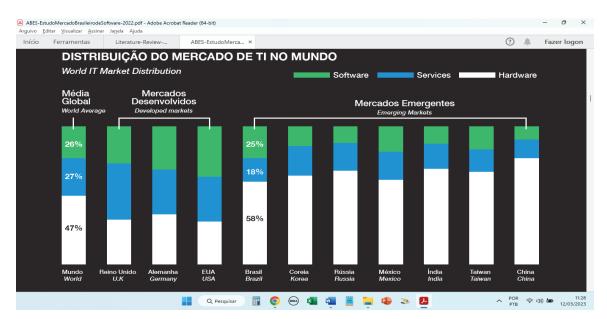


FIGURE 2 World information technology market distribution

Note: IT = information technology

**Source:** ABES, 212, p. 6.

#### THEORETICAL BACKGROUND

Agency Theory (Eisenhardt, 1989) is part of the Contract Theory, dealing with the relationship between business agents and their principals, such as the CFO and upper management. Two classic problems identified in agency relationships are the conflicting goals between principal and agent, and the difficulty of verifying agent actions. Agency Theory—this is applicable to cases characterized by problematic contract issues, for example, conflict between agents and principals, uncertainty, and poor team formation. Contingency Theory was developed by Fred Fiedler back in 1964 and postulates that leaders, such as CFOs, behave differently in different situations. This theory is quite applicable in the context of a Brazilian IT business environment since it features the influence of situational variables on CFO behavior and challenges. CFO leadership role has been researched over the last decades with different styles of leadership, such as leadership based on personal traits, formal and informal styles of leadership, leadership that uses communication technology, leadership based on emotional intelligence, leaders of small groups and transformational leadership. The Transformational leadership style helps create a unifying force in followers that motivates them to work beyond the call of duty while encouraging them to be highly imaginative and creative in problem solving. Ching and Gerab (2012) investigated the effects of corporate governance policies on the financial performance of firms. It was found that there is a positive relationship between the standards of corporate governance and the operating performance measures represented by cash flow return, return on assets and return on equity, and stock performance represented by price-to-book value ratio. According to the study on capital budgeting methodologies in Brazil by Mendes-Da-Silva and Saito (2014), CFOs of listed companies show a greater tendency to use more sophisticated financial evaluation techniques such as net present value (NPV) and capital asset pricing model (CAPM), while those of unlisted companies reveal a lower inclination to estimate the cost of equity. A study by Chaddad and Valentinov (2017) on large corporate farms illuminated technical and organizational solutions to agency problems: good corporate governance practices, computer-aided accounting systems, incentive-based compensation for good performance, clear performance goals, and delegation of operational decisions all promote trust and accountability. Such is the research gap in this line: the CFO acts as a transformative change catalyst and trusted confidant of the CEO. This is the gap this research fills because it explores from an agent's perspective the factors that help explain the mechanism of building a loyal relationship between principal and agent by integrating the agency and contingency theories.

## **METHODOLOGY**

This study uses qualitative approaches, according to Saunders et al. (2009) and Strauss and Corbin (1990), to investigate professional experiences and views. It also adopts interpretivism through an inductive approach by conducting in-depth, semi-structured interviews of C-level professionals. Cross-sectional studies were performed in order to analyze the time scope and impact of evaluating CFO activities in the Brazilian IT scenario.

## SAMPLING STRATEGY

This report employed three sampling methods: (a) purposive sampling, (b) criterion sampling, and (c) snowball sampling, as they were the most appropriate for the research. A purposeful sampling strategy was chosen because data quality is more important than quantity. It would only be possible to comprehend the nuances of the analyzed phenomenon using a questionnaire. Because the following criteria were used to select participants and interviewees, criterion sampling was used: (a) CFOs, controllers and/or financial leaders; (b) part of the CFO ecosystem; (c) covering the Brazilian IT sector, (d) minimum of three years of professional experience. Because participants could assist in locating additional participants/interviewees, the snowball sampling strategy was selected. One participant (P#1) brought two additional participants (P#x and P#y) to the Focus Group session as a result.

# FINDINGS AND ANALYSIS

The study utilized Myers and Newman's (2007) semi-structured interview approach to gather information from experienced professionals in the IT sector. The n=20 Interviews sessions took place from 29 August to 10 October 2023, totaling 34,454 words. The meeting occurred at

the virtual chat room platform Webex\*. The resulting files were stored with the MP4 extension. The Interviews gathered 20 interviewees and one facilitator. The invitations (n=21) were sent via Calendar, phone call, text, and voice mail. Initially, 21 invitations were sent. Interviewee #20 canceled the interview with no further explanation before it started. Therefore, we invited an additional interviewee to participate, totaling a 95.2 percent response rate formalized via email to those who confirmed. Prior to the commencement of the study, participants were presented with a containing the following information: (a) the data collected would be used for educational purposes; (b) the research would not be utilized for commercial endeavors; (c) participation was voluntary; (d) participants' identities and the names of the companies involved would be protected due to ethical and compliance considerations; (e) participants had the freedom to withdraw from the study at any point; and (f) participants were given the option to grant permission for direct citations and the use of their names in publications. The frequency distribution and word cloud were generated using the student edition of Software NVivo\* 12. The ethnographic information from the n=20 interviewees in the in-depth interviews is shown in Table 1, as follows:

TABLE 1 Interviewees ethnographic summary

Interviewee	Job Position	Local	Professional Experience (Years)	Gender	Education Level	MGT Level
I#1	COO	Rio de Janeiro	20	М	MBA	High
I#2	CFO	São Paulo	27	М	MBA	High
I#3	CFO	São Paulo	28	М	MBA	High
l#4	CFO	São Paulo	34	М	MBA	High
I#5	CFO	São Paulo	25	М	MBA	High
I#6	CEO	São Paulo	31	М	MBA	High
I#7	CFO	São Paulo	15	М	MBA	High
I#8	Financial VP	Mexico City	32	F	MBA	High
I#9	CFO	São Paulo	18	М	MBA	High
I#10	Independent Board Member	São Paulo	33	F	Post-MBA	High
I#11	CFO	São Paulo	11	М	MBA	High
I#12	CFO	São Paulo	15	F	MBA	High
I#13	Finance Leader	São Paulo	7	М	MBA	High
I#14	Global Finance Leader	São Paulo	27	F	MBA	High
I#15	CFO	São Paulo	10	F	MBA	High
I#16	Financial Director	Rio de Janeiro	20	F	МВА	High
I#17	Country Controller	São Paulo	32	М	МВА	High
I#18	CFO	Rio de Janeiro	32	М	MBA	High
I#19	CFO	São Paulo	13	М	MBA	High
I#20	CFO	São Paulo	28	М	MBA	High
Average			22			

**Note:** CEO = chief executive officer; CFO = chief financial officer; COO = chief operating officer; F = female; M = male; MBA = Master of Business Administration; MGT = management; VP = vice president.

Table 1 shows that 70 percent of interviewees were male (30 percent female). The average time of work experience is 22 years. The participants were also from the South Eastern Brazil (95 percent), and 700 percent were CFOs. Finally, regarding the level of education, 100 percent hold an MBA. The present study examined data obtained from participants who spoke Brazilian Portuguese, excluding observer comments (OC), field notes, queries, and statements and phrases deemed irrelevant to the research. The unprocessed data was transcribed and afterward converted into the English language. The interviews occurred in clam places, to avoid distraction, without background noises. The software NVivo® 12 - student edition was used to generate charts, including a frequency distribution in Figure 3 and a Word Cloud in Figure 4, to visualize the data.

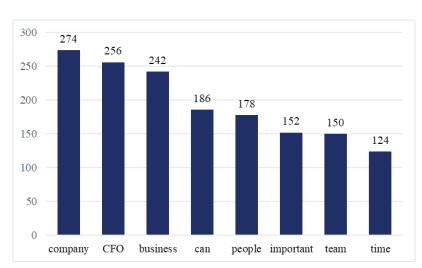


FIGURE 3 Frequency distribution from the in-depth interviews

**Note:** CFO = chief financial officer.

Source: Pereira (2023).

Figure 3 shows "company," "CFO," and "business" as relevant findings in the interviews. Note that Next, Figure 4 shows the word cloud chart.

FIGURE 4 In-depth interviews word cloud chart



Source: Pereira (2023).

Comparing Figures 3 and 4, Figure 4 displays the most frequently mentioned words in the in-depth interviews, while Figure 5 illustrates their frequency distribution. The words "company," "CFO," "people," and "business" are the most frequently mentioned in the interview sessions. However, these words lack context and interactivity. Figure 6 details the Text Word Analysis findings for the raw data.

digital employee solution financie strategic making technologyculture work role company ation wiedoe lot start days team office cfo people business thing situation point important talking profile munication skill effectively operationa discuss

FIGURE 5 Focus interviews text network

Source: InfraNodus Text Word Analysis

Figure 5 shows the interconnection between the most frequent words. Note how the words "CFO," company," and "business" are knots that represent connections with less frequent words, forming meanings valid for the analysis.

The interview protocol was revealed prior to the presentation of the questions. Following a series of warm-up questions, the interviewers answered the subsequent questions sequentially, according to the methodology outlined by Myers and Newman (2007). Additionally, they supplemented their responses with further remarks throughout each participation round. The distinctive methodology offers valuable perspectives that may be further investigated via qualitative interviews. Subsequently, after undergoing a rigorous three-phase, iterative coding procedure, the open, axial, and selective codes were organized into distinct categories and subcategories. This method unveiled two additional emergent themes through meticulous content analysis: (a) Mastering hard skills; (b) Mastering soft skills; (c) CFO's concerns; (d) CFO's challenges; (e)Traditional CFO; (f) Strategic CFO, and (g) Digital Adaptability. Table 2 illustrates the coding findings, following Strauss and Corbin (1990), illustrated in Table 2:

TABLE 2 In-depth Interviews Coding: categories, subcategories and open codes

Theme / Category	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7
	Mastering hard skills	Mastering soft skills	CFOs' concerns	CFO's challenges	Traditional CFO	Strategic CFO	Digital adaptability
Subcategory	Accounting	communication	how to motivate people	remote leadership	performance evaluation	market strategy	digital transformation
	Finance	active listening	how to help the CEO	remote empathy	accounting, finance	aggregate value	technology revolution
	IFRS	active speaking	how to interact with clients	Be the new CFO	background on accounting	closing business	exponential development
	US gap	assertiveness	how to deal with market and sales	dealing with different hard skills	control	closing negotiations	technology communication enhancement
	BR gap	focus	how to improve the relationship with the business team		focused only in balancesheets	end-to-end	technology tools usage
	Statutary	empathy			static	dynamic	innovative implementation
	Operational control	time management					migration to platform business
		transformation agent					

Note: CEO = chief executive officer; CFO = chief financial officer; IFRS = International Financial Reporting Standards.

The coding technique posed a substantial obstacle, requiring coders to use triangulation to minimize the potential for misinterpretations. An additional researcher conducted an independent analysis of the raw data, carefully reviewing and scrutinizing the results using the methods described by Miles, Huberman, and Saldaña (2014).

Table 2 shows the emerging subcategories and categories. Initially, the open codes were organized, leading to the emergence of axial codes, which represented subclasses. Ultimately, the selective codes were developed, representing the overarching categories. The research included the iterative process of consolidating superfluous categories or subcategories, per the methodology outlined by Strauss and Corbin (1990). In order to establish the credibility and reliability of the data, a researcher used the method of triangulation, as recommended by Denzin (1978) and Miles, Huberman, and Saldaña (2014). Two separate coding procedures verified the themes and synthesized them through convergence analysis.

# DISCUSSION

Despite much effort put into the CFO's performance, little is known about how the CFO functions as a critical catalyst for transformative change, harnessing emerging technology to formulate strategic plans and make informed choices. Additionally, the CFO is a trusted confidant to the CEO (Chandra et al., 2018). Therefore, in the previous chapter, we detailed the analysis of the findings through content and thematic analysis, totaling seven factors that

influence CFO activity in the Brazilian IT industry, introducing the discussion by presenting the seven emerging factors as follows:

Mastering hard skills was considered relevant to the interviewees. For instance, Interviewee #1 defined the importance of mastering hard skills for the CFO's role: "Let me start by talking about hard skills. These are the skills that we bring from our university courses. In terms of hard skills, the CFO needs to have a strong background in finance. The CFO must understand accounting, corporate finance, balance sheet, cash flow, P&L, and all these intricacies, IFRS. You have to know both the US gap and the BR gap part. You also have to understand the IFRS part and often the BR gap, which is your statutory part. You have to understand this statutory part, which is better known as the BR gap. The accounting in the local book. They are international standardized result measurement meters." (I#1)

According to Interviewee #9, the mastering hards skills is an fundamental part of daily activities of a CFO, such as "our area closes 224 KPIs (key performance indexes) in the fifth work day, and our balance sheet in the second work day. (...) We have a historic of excellence on that accomplishment." (I#9)

Interviewee I#11 declared that "Financial planning is the critical area of our company because it is the area where one can optimize other business areas. (...) The minimum a CFO needs is to master hard skills." (I#11). In turn, I#4 declared that is it mandatory "to get used to a 'culture of balance sheets' within the organization, as a CFO." (I#4)

Mastering soft skills was considered relevant to the interviewees. The interviewees considered it most relevant to pursue soft skills. Interviewee I#10 expressed the importance of mastering soft skills: "We became more active players in our business. Today, as the CFO, I go into the client. I want to understand, for instance, if the client faces some difficulty to pay me, or if it is a system issue, but I go into the client." (I#10) Ultimately, I#11 revealed the accordance with the investment in soft skills as relevant to "gain prominence within the organization, have to perfect these skills. These skills are super important. (...) Of course, technical knowledge is important, but I think that nowadays, it is much more important for you to know, listen, understand, and transform this information that you receive from all sides, right? It's the client's, it's your partner's, it is the executive you serve, in short. There are several sources of information that you have to learn to listen to and transform financially into something super in line with what we have been discussing and seeing daily, exactly that. The CFO is an agent of transformation nowadays, right? He has to understand, digest, and turn that into insights and link the conversations." (I#11)

**CFOs' concerns** were perceived as extremely relevant to higher low management positions. According to I#2, "The pandemic's impacts on each are unique. So, it is still a precaution we must take, and it is a topic here. It was not talked about, and today, it is talked about; it is about our mental health and our concerns. So, that is a key point. The issue of remote work, how to manage companies in this remote work. Many things have become much more important." (I#2)

CFO's challenges was perceived as relevant to all interviewees. Interviewee I#2 considered it most relevant to pursue: "being the CFO of a technology company brings a lot of the traditional challenges that we have in the position of CFO, which is to manage the cost, which is to manage taxes, expenses, the controls area." (I#2) Interviewee I#4 revealed that a CFO challenge regards adopting teamwork strategies to create a collaborative environment: "A good CFO should create collaborative environments both top and bottom. When one creates a collaborative environment, things work better because people are not afraid to talk. People are

not judged, and therefore can innovate." (I#4). Moreover, another CFO challenge pointed out by I#4 regards integrating different skills, leadership styles, and backgrounds into the CFO team: "Being able to have people with different styles: one guy is more liberal, another is squarer. The other had a degree abroad. Another had a degree from a small college. The other CFO at the top university in São Paulo. The other is in economics, an accountant, an engineer, communication, and marketing, and the other came from a social class with fewer opportunities. Different things are born in this room." (I#4)

**Traditional CFO** was considered highly relevant to all management. According to I#1, the traditional CFO: "The older, more traditional CFO, very focused on the calculation of results, business control, closing the books, while the more strategic CFO managing to add value at the other end, closing negotiations, going to external customers, walking together with business advisor to the president, that's it. (...) For the CFO, where we had that traditional culture of being the decision-maker, that is, our main focus was on making decisions, the pandemic demanded a lot from me and my leadership base." (I#1)

Regarding the old days, I#12 revealed the following: "In the old days, I needed ten people to do coding, an implementation, anything like that; with technology, I need five. I put in an artificial intelligence tool, and I can, with half, 70% of the people, reduce the people I would need." (I#12)

**Strategic CFO**, the sixth emerging theme is relevant mostly to higher managerial positions. I#1 revealed how the strategic CFO should be: "the strategic CFO manages to add value at the other end, closing negotiations, going to external customers, walking together with business advisor to the president, that's it." (I#1)

Despite the acknowledgment of the importance of corporate governance importance, some Interviewees manifested a diverse opinion, such as I#4 that declared "the old CFO was confined to the office. The new CFO has to deal with diversity, different skills and areas, should integrate people, to create a collaborative environment, and more." (I#4)

I#6 compared technology usage as a difference between the old and new CFOs: "Staff retention is one of the important skills. Now, creating team spirit, working with people and such, the new kids have much knowledge. Hence, they are already literate in this technological issue, and older executives suffer more from acquiring technology knowledge. The kids already have this in their veins, but we must ensure it integrates with what we had before working on the 'CFO 101'. For instance, working as a team gives them space to grow." (I#6)

I#7 described the new CFO: "The new CFO needs certain attributes, certain skills, competencies that have been developed over time. That's key. I see it in the interactions I've had with CFOs in the market. Everyone talks about the presence of the finance team in digital transformation and the role of the CFO, specifically." (I#7)

I#8 revealed the attributes of the new CFO: "That part that was much stricter of delimitation of functions, now I have to be part of a business generation ecosystem. How do I go from a peer control to a Business Advisor who helps this business transformation grow and never loses the essence of the finances? In the financial field, we cannot jump over the barrier and say: well, we will do anything. We will not do something correctly about the proper management and care of resources. In any case, our function has become closer to the business every day. Increasingly, it is an Advisor of a segment. Moreover, I become more aware of what has to happen in the business every day. I think there is a tremendous change in the world, and our role is very relevant." (I#8)

**Digital adaptability**, the seventh emerging theme is relevant mostly to higher managerial positions. Despite the acknowledgment of the importance of corporate governance importance, some Interviewees manifested a diverse opinion:

I#7 described the digital transformation process, including "The CFO is becoming a significant player in this requirement to lead the digital transformation with this extensive team that exists from the C-Level outside of the CEO, specifically. How do I integrate my CEO to make us have more agile and integrated processes using this digital transformation? The more you can get the finance team to have access online, in the palm of their hand, etc., the faster you conclude and the faster you direct the deal, the faster you react, the better data you'll have, and the more time you'll have to effectively think about what needs to be done. Instead of generating the information and then starting to think about what it needs to be. I see these two fronts: how finance can help the company transform itself digitally, integrating processes, and how this digital transformation can affect and bring great benefits to the performance of the finance team and, therefore, to the company's performance." (I#7)

Moreover, I#8 confirmed the importance of the digital transformation: "I see much interest in the market from CFOs who are our clients or not. They are interested in this digital transformation." (I#8)

Finally, I#11 revealed how the digital transformation affects the CFO role: "We are a credit card issuer, we offer credit to customers, we can also launch a digital wallet to enable payments. There is a startup that's very focused on technology, so we integrate with the ERP to make reconciliations and facilitate the day-to-day of finance, among several things." (I#11)

### IMPLICATIONS AND RESEARCH LIMITATIONS

One of the implications of the CFO to new requirements, such as digitalization in core company operations and cybersecurity monitoring. However, most CFOs feel that their organizations have to be prepared to face them. They need to develop skills in other areas and play a more active role in leadership—to add value, reassessing their approaches in dealing with outside issues and finding new sources of investment. This study shows that CFOs view value creation in more ways than traditional financial activities as displayed in theme two on the soft skill's management, and theme six which stresses the strategic CFO role in developing strategic leadership as the first priority. In the future, CFOs are supposed to focus more on strategic leadership and organizational change, performance management, and big data and technology trends. In the opinion of senior executives and CFOs, finance leaders play a crucial role in their companies.

Both sides agree that CFOs deal with their teams and need to more generally emphasize strategic leadership. However, CFOs believe their contributions differ from those of other C-suite officers. Most CFOs bring very extensive financial knowledge to the table underpinning the creation of financial value and being the face of the executive team before stakeholders. However, there is a gap between the leadership skills CFOs currently possess and what other corporate leaders expect from them, as can be inferred from themes five and six, whereby CFOs typically need extra resources and competencies to overcome barriers to finance function excellence. Others, on the other hand, perceive a lack of innovative thinking. CFOs recognize the need for new decision-making practices but few report doing so. Sixty-six percent of CFOs believed

their organizations need more agility, scenario-planning, and decentralized decision-making capabilities. They use basic financial controls but hardly ever discuss advanced techniques. Most CFOs say that their organizations set project specific capital spending budgets, apply consistent KPIs across all business divisions, and track project results. This study has implications in other fields and subfields of research, such as: (a) government trades (Fernandes; Dias, 2024); (b) nonmarket negotiations (Navarro; Dias, 2024; Dias, 2016); (c) business negotiations (Santos; Dias, 2024a, 2024b; Dias, 2023a); (d) construction negotiation (Dias, 2023b); (e) business mediation (Dias et al., 2023a); (f) virtual negotiations (Dias et al., 2023b); retail business negotiations (Valente; Dias, 2023).

This study is limited to the methods applied and the purposive sample, following Miles, Huberman, and Saldaña (2014), Strauss and Corbin (1990), and Myers and Newman (2007). The discussion and conclusion are also restricted to the opinions of participants and interviewees, which provided the evidence analyzed and discussed in previous paragraphs. This work is also limited to the Brazilian IT business scenario and laws, norms, and regulations in force. Once the CFO activity is not regulated in this country, we are limited to the existing best practices in the sector.

# **FUTURE RESEARCH**

Subsequent researchers should conduct large-scale macro-statistical investigations to assess CFO skills, clarify job specifications, and appraise candidates for the position. More research to make the discussion in Brazil about the responsibilities of the CFO in different business models richer is suggested. While comparable evaluations of Brazilian CFOs are routinely conducted across the Americas, Europe, and Asia. As a case study, statistical research is being actively conducted to create indices to determine a rating system for Chief Financial Officers (CFOs). For academics, decision-makers, lawmakers, human resource managers, CFOs—anyone—these studies yield important lessons.

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# DATA AVAILABILITY

The entire dataset supporting the results of this study was made available in Research Gate and can be accessed in: https://www.researchgate.net/publication/385428585\_The\_CFO\_financial\_performance\_and\_the\_financial\_market\_scenario\_a\_Review

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