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The Decision-Making Process of Starting an Accounting Franchise Versus a New Brand and their Respective Performance in Light of the Causation and Effectuation Theories

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Synopsis- *The research problem:* This study investigates the decision-making process of accountant entrepreneurs as they embark on new ventures. It observes the approach taken – causation or effectuation – when selecting the type of enterprise and explores the relationship between the approach and the resulting company's performance. Therefore, the research question is as follows: How does the decision-making process differ when starting a new accounting franchise versus an independent firm, considering the perspectives of causation and effectuation? And what is the relationship between the chosen approach and the new company's performance?

Motivation or theoretical reasoning

The results provide crucial and practical insights for entrepreneurs who participated in the study and those who may be deciding between starting a franchise or an independent firm. The study enables entrepreneurs to adopt the causation and effectuation approaches, helping them assess their decision-making process and identify factors that impact the returns obtained from their choices when launching a new endeavor.

Keywords: *decision-making process; causation; effectuation; accounting franchise; independent accounting company; performance.*

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The research is justified by the need to test, develop, or adapt methodologies that allow the analysis of decision-making processes related to starting new businesses and identifying obstacles and advantages. Additionally, the study is relevant for its potential to support other academic projects and future research.

The hypotheses

H1: The causation decision-making approach is more likely to result in starting a franchise.

H2: The effectuation decision-making approach is more likely to result in starting an independent company.

H3: The causation approach has a mediating effect on the relationship between the type of venture created and its performance.

H4: The effectuation approach has a mediating effect on the relationship between the type of venture created and its performance.

H5: The types of ventures present different performance levels, with franchises showing higher performance compared to independent companies.

Target population

The research population comprises accounting firms considered legal entities by the Brazilian Federal Revenue Service, registered with the Brazilian Federal Accounting Council (CFC) in 2023 (CFC, 2023), and regular members of the council's regional offices throughout the country. Information regarding the number of Brazilian accountant entrepreneurs was collected from the CFC database (CFC, 2023).

The research subjects were the managing owners of accounting enterprises. The sample counted 718 respondents, including 312 managers of accounting franchises and 406 managers of independent accounting firms.

Methodology

This study follows a descriptive-exploratory approach with a quantitative focus, utilizing a survey. The sampling method is non-probabilistic and intentional, covering all franchise and independent accounting enterprises listed in the CFC. A questionnaire adapted from Chandler et al. (2011), Brettel et al. (2012), Appelhoff et al. (2015), and Neely, Gregory, and Plattys (1995) was employed. Data interpretation was based on the hypotheses, and analysis was conducted using partial least squares structural equation modeling (PLS-SEM).

Analyses

The constructs causation, effectuation, and performance were second-order constructs in the PLS-SEM. This means they were not directly formed by their items but through latent variables (indicators). Also, the analysis adopted the two-stage approach, which uses the scores of the first-order constructs as items of the second-order constructs (Hair et al., 2021). Therefore, the scores of the first-order latent variables were calculated using factor analysis, and subsequently, the structural equation model was adjusted.

Findings

The results confirmed all five hypotheses. The analysis revealed that entrepreneurs typically opted for franchises after a causation decision-making process, while they chose to establish independent accounting firms after an effectuation decision-making process (H1 and H2, respectively). Furthermore, the findings related to company performance supported hypotheses H3 and H4, highlighting the mediating role of both the causation and effectuation approaches. Ventures initiated through causation logic demonstrated superior performance. Lastly, the performance comparison between accounting franchises and independent accounting firms confirmed that franchises exhibit higher performance (H5). Given the contemporary relevance of this research topic, these results have significant academic and practical implications, particularly emphasizing the superior performance of accounting franchises and their connection to the entrepreneur's decision-making process rooted in causation.

Keywords: decision-making process; causation; effectuation; accounting franchise; independent accounting company; performance.

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I. Introduction

In a dynamic and globalized market, both individuals and companies must be prepared to undertake substantial transformations and adaptations (Li, Su, Zhang & Mao, 2018). In this sense, governments have recognized entrepreneurship as an alternative for promoting economic and social development. The emphasis on entrepreneurship has grown significantly in recent years, significantly impacting the economic development of countries (Vuong et al., 2016; Wakkee, Veen, & Eurling, 2015; Dorobat & Topan, 2015; Audretsch, 2012).

Entrepreneurship refers to human professional efforts to transform productive and economic resources to generate profit. It involves creating new products or innovative techniques for goods and services (Peña-Ayala et al., 2020). Entrepreneurship serves as a source of profitability, driven by an entrepreneurial vision that recognizes the potential of a business – whether entirely new or improved – to address a social need, even in the face of uncertainties (Vinholis et al., 2016).

However, these studies have provided limited information regarding whether and how entrepreneurs can transition from survival to prosperity. This calls for further research into creating new opportunities through innovation and revenue-generating actions during crises (Kuckertz et al., 2020; Thorgren and Williams, 2020). Taking action to create and pursue opportunities lies at the core of entrepreneurship (Björklund et al., 2020).

Unpredictability during times of crisis presents a challenge to the imagination. Resilient organizations remain open to improvisation and reorganization, equipped with sufficient resources to withstand shocks and implement necessary changes (Mayberry et al., 2020). Along these lines, entrepreneurship literature explores various approaches to dealing with uncertainty scenarios (Olivé-Tomàs & Harmeling, 2019). As Kim and Mauborne (2014) described, some involve creating new markets. Another approach emphasizes the importance of planning and control in decision-making. Finally, the basic theories of causation and effectuation come into play. The causation perspective focuses on decisions based on prediction (Saravasthy, 2001; Jiang & Ruling, 2017), while effectuation refers to how entrepreneurs make decisions in an uncertain future (Fidelis et al., 2018).

Thus, globalization and technological advances intensify the competitive business environment, posing a significant challenge to companies' survival. Consequently, adaptation and the formulation of competitive strategies become imperative. These dynamics directly affect both franchises and independent firms within the accounting sector.

In this context, accounting organizations confront an environment of escalating competitiveness, compelling them to seek strategies that ensure survival and continuity. It is possible to assert that the bedrock of the knowledge economy lies in the professional development of specialists who focus on innovative business structures through lifelong learning. Specifically, their transversal skills play a pivotal role, enabling these specialists to facilitate the transition of enterprises into innovative organizational forms in terms of productive activities (Tolochko, Bordiug, & Knysh, 2020).

In a rapidly changing world, where business is conducted globally and through electronic commerce, future accountants face increasing demands for developing a wide range of competencies (Howieson, 2003). This research focuses on the decision-making process of accounting entrepreneurs when deciding to start either an accounting franchise or an independent accounting firm, all within the context of causation and effectuation theories. The central research question guiding this study is as follows: How does the decision-making process differ when starting a new accounting franchise versus an independent firm, considering the perspectives of causation and effectuation? And what is the relationship between the chosen approach and the new company's performance?

Therefore, the general objective of this study is to analyze the decision-making process of entrepreneurs when starting an accounting franchise versus an independent firm, all within the context of causation and effectuation theories. The following specific objectives were outlined: (i) Compare the performance of accounting franchises versus independent firms. This analysis will consider the causation and effectuation approaches employed during the decision-making process when launching a new enterprise; (ii) Examine how the adoption of causation or effectuation approaches influences the decision for the type of venture – whether a franchise or an independent firm; (iii) Evaluate the mediating effect of using causation or effectuation approaches in decision-making. Specifically, explore how these approaches impact the relationship between the type of venture initiated and its subsequent performance; and (iv) Determine which type of venture – franchise or independent firm – demonstrates superior performance.

a) Originality/relevance

The originality of the research lies in reconciling the causation and effectuation theories with the accountant's entrepreneurship by understanding how this professional behaves in the decision-making process regarding starting an accounting franchise versus an independent firm, as well as observing the business performance. The study's differential is the adoption of a quantitative approach to the analysis of results, offering robustness in its findings.

The accountant entrepreneur can utilize this research to consolidate information that supports the

decision-making process when considering starting an accounting franchise or an independent firm. Furthermore, this study addresses a literature gap, explicitly focusing on the decision-making process related to starting an accounting franchise versus an independent accounting firm, considering the perspectives of causation and effectuation theories. Additionally, it explores the relationship between the chosen approach and the positive or negative results of the business.

The reflection in this article offers security in decision-making by providing reliable and relevant information. According to Matalamaki (2017), there is a lack of in-depth research, and it is still unclear how both causation and effectuation logics occur in the development of different types of companies, even with the growing interest in the effectuation theory in recent years. This research is justified due to the need to understand the relationship between these two types of ventures: the accounting franchise and the independent accounting firm. Additionally, exploring the causation and effectuation approaches employed in decision-making processes is crucial. Understanding how accounting professionals navigate and respond to the challenges of economic volatility through entrepreneurial behavior will contribute to academia and improve business practices, ultimately enhancing the way these professionals work.

The study's results offer crucial and practical insights for entrepreneurs who are the subject of the study, as well as for those who may face a similar situation when choosing between starting their own brand or investing in a franchise. Consequently, both accounting franchise and independent entrepreneurs can evaluate the best way to proceed using the causation and effectuation theories. By doing so, entrepreneurs can examine their own actions from the point of view of these theories and identify factors that impact the returns of their choices when launching a new endeavor.

This study also addresses the need to test, develop, or adapt methodologies for analyzing decision-making processes when starting a new venture, with a focus on identifying obstacles and advantages. Its significance lies in generating results that can be applied to other academic projects.

Given the contemporary nature of the topic addressed in this research, the results raise several academic and practical implications. First, this study uses causation theory and effectuation theory to analyze the factors present in the decision to start a new accounting venture that affect the performance of the company created (an accounting franchise or an independent firm). Secondly, the article is based on emerging research. It expands the discussion in the literature to the specific topic of creating accounting franchises and independent accounting firms and links these approaches to the decision-making process and business performance. The research results complement previous studies, such as that by Murnieks et al. (2011), revealing that the causation and effectuation approaches to decision-making are important and influence business performance. As discussed later, the study observes that the creation of an accounting franchise is related to a causation logic, and this type of venture presents a superior performance.

The third implication aligns with the dimensions established by Appelholff et al. (2015) and Neely, Gregory, and Plattys (1995). These dimensions allowed us to frame specific questions related to the causation and effectuation approaches in decision-making processes and issues related to measuring business performance. The results indicate a positive and significant association between undertaking accounting franchises and business performance, with a particular emphasis on the use of the causation perspective in the decision-making process.

The following section presents the theoretical framework, which offers elements to subsidize the formulation of the research hypotheses.

II. Theoretical Framework

The theoretical framework is presented in three subsections addressing the causation and effectuation decision-making approaches; the issue of starting a new venture, be it an accounting franchise or an independent accounting firm; and the performance of an accounting franchise versus an independent company. The research hypotheses were formulated based on the discussions in this section.

a) Causation and effectuation decision-making approaches

The decision-making process and the debate about the theories involved in this process refer to the discussion of rationality, which can be interpreted in various ways, depending on the context. One of the first scholars who focused on this study in the 1950s was Simon (1979). The author proposed the concept of limited rationality, observing that people have limited abilities to evaluate all possible alternatives to a decision, as well as their uncertain consequences.

Decision-making is defined by Bass et al. (1983) as an orderly process that begins when the decision-maker discovers that there is a discrepancy between the current state of a given subject and where it should be. For Kuckerstz (2011), decision-making is a key element in the study of entrepreneurship. In addition, enterprises have created a way to remain aware of their environment with serial decision-making, where decisions of the past influence present choices that prepare the context for selecting future options (Abzug, 2017). This fact contrasts with new ventures that

carry out their operations in a context of uncertainty and a constant lack of information (Saloua, Hafida, & Maryam, 2023).

Droj and Droj (2015) point out that for investment projects developed by private companies, decision-making is considered one of the biggest challenges the company's top managers and shareholders face. This complex process involves identifying, evaluating and selecting the best investment opportunities. Otherwise, the decision to enter into an entrepreneurial activity is linked to a "costs versus benefits" type relationship, in which the costs of such a decision are considerably smaller in the early stages of a career (Merida & Rocha, 2021).

Citroen (2009, 2011) and Frishammar (2003) discuss whether organizations have the knowledge to find robust data and information to continue attributing relevance to different types of decisions. The authors stress that crucial decisions do not happen daily. This means that organizations may be unprepared in exceptional circumstances, lacking technological resources or prior experience necessary to support decisions made in these exceptional conditions. Parra et al. (2023) emphasize the need to closely monitor all business processes and use distributed analytics to gain superior performance. The authors also highlight that more companies will migrate to a service-oriented business model, where technology will serve decision-makers at the strategic level. At this point, managers will heavily rely on artificial intelligence and analytics teams to enhance human judgment.

In this context, initial considerations are presented regarding the general structure of the causation decision-making approach, as Saravasthy (2001) outlined. Within this approach, entrepreneurs have a clear objective or a specific decision to make.

The future is an extension of the past, allowing for predictability (Read and Saravasthy, 2005). Entrepreneurs engage in analysis and activities as they leverage available resources and knowledge (Chandler et al., 2011). The decision-making process must be well-structured and resolved formally, with attention to detail, consistency, and transparency. The ultimate goal is to drive organizational performance from the current state toward a preferable equilibrium (Zivdar et al., 2017). Welter and Kim (2018) emphasize that the theoretical foundations of the causation approach in decision-making rest on predictable aspects of an uncertain future. In other words, planning before execution enhances human action in the face of uncertainty.

The causation approach applies to decision-making, as this logic assists entrepreneurs in making informed choices. The strategies proposed by this theory are particularly useful when the future is predictable, objectives are clear, and the environment remains independent of their actions (Jiang & Ruçing, 2017).

The effectuation approach, in turn, emerges from Sarasvathy's (2001) discussion on causation. Olivé-Tomàs and Harmeling (2019) highlight several approaches for dealing with uncertainty within the entrepreneurship literature. These approaches include strategies related to creating new markets (Kim & Mauborne, 2014), emphasizing planning and decision-making control (causation), and adopting an effectuation logic that emphasizes affordable loss. The causation and effectuation approaches in entrepreneurs' decision-making within contexts of uncertainty are described based on the contributions of each approach (Sarasvathy, 2001).

Thus, the entrepreneur identifies and seizes the means available to envision, design and implement future plans (Dew, 2003; Sarasvathy, 2001).

According to Saravasthy (2001), effectuation stands in contrast to causation. Unlike the latter, the effectuation approach to decision-making, developed by Sarasvathy (2001), provides an alternative to the deterministic paradigm of causal rationality. This paradigm has been questioned because it does not always present the best path for starting a new venture (Tasic & Andreassi, 2008). In effectuation logic, entrepreneurs navigate the unpredictable future by exploring contingencies rather than trying to accumulate knowledge to predict uncertainties. They commit to focusing first on controllable aspects. The choices they make are defined by the means they possess and their imagination (Galkina & Lundgren-Henriksson, 2017).

This decision-making process begins with evaluating resources and then establishing goals. These goals are not considered mandatory endpoints but are faced as possibilities. They emerge from the assumptions and aspirations of the founders and the people with whom they interact (Sarasvathy, 2001; Read & Sarasvathy, 2005).

The effectuation process enables the realization of various effects, even if only one or a few ideas are actually implemented. Entrepreneurs can change their goals, adapt them, and even build many over time, taking advantage of countless contingencies that arise along the way (Tasic & Andreassi, 2008). Therefore, the effectuation approach can be understood as an alternative decision-making logic in moments of uncertainty (Perry et al., 2012). In the evolution of this theory, Sarasvathy (2001; 2003; 2008; 2009) posits that entrepreneurs operating within this logic view the world as an ongoing project where they can exert influence. Opportunities, companies, and markets are not fixed; they are achievements (Sarasvathy & Dew, 2005). The effectuation theory can be seen as a dynamic process that clarifies entrepreneurial action by leveraging available resources to start new ventures in an uncertain environment (Scaziotta et al., 2020). Entrepreneurs adopting the effectuation logic can decide which path to follow, recognizing that they actively shape these paths

(Murdock & Varnes, 2018). The effectuation logic is suitable for understanding the creation and decision-making processes across all types of enterprises (Sarasvathy, 2008).

Along these lines, the study by Chandler et al. (2011) highlights this theory of entrepreneurial decision-making. They develop and validate measures of the causation and effectuation approaches for creating new ventures. Causation is a well-defined and coherent unidimensional construction, while effectuation is a formative and multidimensional construct with three associated subdimensions (experimentation, affordable loss, and flexibility), along with a dimension shared with the Causation construct (pre-commitments). The research brought contributions, as described by Sarasvathy (2001), proving that causation is negatively associated with uncertainty, while experimentation – a sub-dimension of effectuation – is positively correlated with uncertainty. Chandler et al. (2011) contributed to the literature by offering validated scales that enable the measurement of causation and effectuation.

Another study conducted by Brettel et al. (2012) highlighted the characteristics of the effectuation approach in the context of R&D projects. They differentiated it from conventional strategies based on prediction (causation) and developed a complete process to create a qualitative and quantitative scale. This scale captures the particularities of effectuation and causation dimensions in the R&D context. The study extends the application of effectuation logic from R&D to the corporate context, capturing its unique features and investigating its performance results.

Appelhoff et al. (2015) proposed exploring the extent to which an entrepreneur's causation or effectuation decision-making approaches increase the perception of task conflict in the relationship with the investor. The authors found support for some of their hypotheses regarding causation decision-making and observed surprising results for the effectuation decision-making approach. The study used a questionnaire adapted from Brettel et al. (2012) and combined insights from entrepreneurship, effectuation logic, and conflict theory. It deepened the understanding of intergroup processes concerning effectuation and causation behavior. These theories allow for a detailed study of entrepreneurial decision-making as a potential driver of investor-entrepreneur conflict, highlighting a set of personal principles entrepreneurs use when starting and scaling up their ventures.

The research by Appelhoff et al. (2015) contributed to the literature on the business decision-making process based on causation and effectuation theories. While some studies treat preferences for effectuation and causation logics as opposites on the same continuum (e.g., Brettel et al., 2012), others assert that the dimensions of both logics are independent of each other (e.g., Chandler et al., 2011). The authors, therefore, contribute to this discussion by employing measurement scales, which allow for insights into the distinction between decision-making styles.

Subsequent studies evolved toward a conception that both logics are not mutually exclusive and can occur alternatively or simultaneously, presenting variations depending on the context or choices of the entrepreneurs themselves (Harms & Holger, 2012). When associated, the theories are used simultaneously, each in a specific context. Furthermore, they are complementary rather than competing with each other (Guo & Zhang, 2019; Grégoire & Cherchem, 2020). Thus, there is no single decision-making model but different "shades of gray," and decisions are made using both logics simultaneously (Da Rocha et al., 2017, p.19).

The following subsection discusses the issue of starting a new venture, considering the choices of starting an accounting franchise or an independent accounting firm. The discussion takes into account the causation and effectuation approaches examined above, which inform the formulation of the research hypotheses.

b) Starting a new venture: accounting franchises and independent accounting firms

Entrepreneurship by private actors plays a crucial role in the global economy and serves as the primary driver of growth in most countries. Regardless of size, businesses can take various forms, such as sole proprietorship, partnership, or corporation. In general terms, the distinctions between these organizational forms are related to their legal status (Bar-Yosef, D'Augusta, & Prencipe, 2019). The quality of corporate governance influences the decision-making process of accounting and business ventures and significantly impacts company performance (Bar-Yosef, D'Augusta, & Prencipe, 2019).

An entrepreneur is an individual who possesses the initiative and skills to organize and reorganize social and economic resources to gain practical advantages and is capable of accepting risk or failure when establishing new businesses (Hisrich et al., 2014). The entrepreneur is an innovative and creative person who explores the environment in search of new opportunities and exploits them after proper assessment. These opportunities involve creating new businesses, a central topic in business debates. Creating new enterprises entails planning, organizing, and building a new organization (Gartner, 1985).

Emerging technologies have compelled accounting professionals to prepare for numerous forthcoming changes, which could be disruptive but also offer many opportunities in the field (Demirkan, Demirkan, & McKee, 2020). Overall, the primary concern of professionals is how careers in accounting will adapt

and how the required skills will evolve (Kroon, Alves, & Martins, 2021).

The relationship between entrepreneurship and accounting begins with entrepreneurs utilizing accounting services. According to Sabra et al. (2018), entrepreneurs possess distinguishing characteristics such as creativity, determination, and initiative. However, they often face difficulties in managing their businesses, requiring different skills. Economic globalization has presented many challenges to small and medium-sized enterprises (SMEs) due to the rapid intensification of competition, reflected in the relatively high rate of SME closures in the first years after their creation. Therefore, although SMEs play a crucial role in economic development worldwide (Naradda et al., 2020), they must focus on adopting survival strategies and approaches to navigate current challenges. Thus, the enhancement of these companies' performance depends on a structured and formal decision-making process that is organized in detail, consistently, and transparently (Zivdar et al., 2017).

The Brazilian Federal Accounting Council (CFC), through Resolution 560/83, highlights that accounting professionals are entitled to carry out various activities. When exercising their profession, accountants may hold positions as employees, self-employed or independent professionals, or entrepreneurs. Therefore, professionals who want to open their own accounting office must understand the rules and procedures necessary to establish a legal and profitable entity. An entrepreneurial accountant is characterized as an individual who owns an accounting office and offers high-quality services to clients or assists companies in decision-making and market expansion.

According to Appelbaum et al. (2017), the management accountants' responsibility is evolving. The nature of such responsibility has shifted from reporting aggregated historical value to encompassing the assessment of organizational performance and providing managers with relevant data for informed decision-making processes. As business competition has increased exponentially with technological development, the scope of management accounting has seen a systematic shift from historical cost reporting to more real-time and predictive reporting (Cokins, 2013).

From the perspective of accounting professionals, Dahlia and Aman (2018) highlight that changes in accountants' roles may occur as they adapt to new technology and automate tasks. For the authors, the most significant impact of implementing such innovations is the improvement of work efficiency, which means reducing repetitive routines and enhancing the accuracy of financial statements and management analysis. These changes tend to increase motivation in learning and improving IT skills, as well as boost competition. Notably, as new accounting techniques emerge, companies make more rational decisions aiming for long-term results.

In this context, entrepreneurs seeking a business strategy already consolidated in the market might consider starting a franchise, as the profitability and trust expected by the franchisee are the most important antecedents. Furthermore, non-economic motivations for running a franchise influence decisions to leverage alternative opportunities and diminish the importance of switching costs (Croonen & Brand, 2015).

Franchising is a business system that allows the franchisor to transfer the system's know-how and intellectual property in exchange for royalties (Alon, 2005). Known as business format franchising and product franchising, it has a long global history, dating back to the 19th century. Franchising has been an effective strategy for replicating successful concepts in the commercial world for over 80 years (Ziółkowska, 2016). Therefore, franchising is an excellent entrepreneurial alternative for starting out. Franchises are safer for investors, as they offer already tested business models, often in different regions and with varying economic activity characteristics.

While franchising is an important form of entrepreneurship, literature explaining the strategy and performance of this type of business is scarce, with little research examining the performance of franchisees. Knowledge sharing, trust, conflict management, and brand reputation are key factors in reinforcing franchisees' intention to remain and achieve financial performance within the franchise system (Wu, 2015).

In developed countries, franchising represents a large proportion of the number of companies and jobs created. Alon (2014) and Baena (2012) highlight that franchising is a tool for economic development and global integration in emerging and transition markets. In Brazil, the influence of franchising can also be felt in the domestic economy. For instance, the franchising sector directly employed 1.5 million people in 2022, according to data from the Brazilian Franchising Association (ABF, 2022).

Generally speaking, franchisors want their franchisees to succeed, and most franchisors work diligently to provide them with the tools and guidance they need. Franchisees are independent entrepreneurs who make a variety of business decisions that ultimately determine the success or failure of their businesses (Hanafiah et al., 2023).

When comparing franchising with other types of businesses, it can be said that starting a franchise is less risky than starting your own business because franchisees benefit from the franchisor's brand recognition and experience. This also increases the chances of success for young franchisees as they strictly follow the franchisor's instructions. In return, franchisees provide the franchise system with financial capital, geographic and labor market knowledge, and

workforce management (Alon et al., 2020). Franchisees are encouraged to focus on their uniqueness and develop a strong business model to sustain the investment. Thus, a franchise is an organizational planning model that defines the path to success (Davis & DeWitt, 2021; Bretas & Alon, 2020).

Hypothesis 1 was developed based on the literature review of causation and effectuation in decision-making processes. It considers the options analyzed in this research, specifically the choice between starting an accounting franchise and establishing an independent accounting firm. The study will subject the hypothesis to empirical non-parametric tests to identify the relationship between decision-making using the causation approach and the decision to start a new accounting franchise. Hypothesis 1 is:

H1: The causation decision-making approach is more likely to result in starting a franchise.

The decision-making process using the effectuation approach is expected to more frequently result in the choice to start an independent venture company. Hypothesis 2 was formulated based on this reasoning:

H2: The effectuation decision-making approach is more likely to result in starting an independent company.

The hypotheses H3 and H4 refer to the types of ventures and their performance. They will be discussed in the following subsection.

c) *Performance of the accounting franchises and independent accounting firms*

The traditional view of performance measurement has three broad purposes: to ensure the achievement of goals and objectives; assess, control, and improve procedures and processes; and compare and evaluate the performance of different organizations, teams and individuals (Teague & Eilon, 1973). Neely, Gregory, and Plattys (2005, p. 80) point out that the issue of performance measurement is often discussed but rarely conceptualized. The authors establish a link between "measurement" and "quantification" and "action" and "performance," considering performance measurement as the process of quantifying action.

In this context, franchising is a key business growth strategy and an essential element of business development. It involves two different types of entrepreneurs: franchisors, who identify opportunities and distribute them across several geographically dispersed locations, and franchisees, who explore local opportunities. Therefore, franchise management capabilities are an important new theoretical construct linking the franchise to the franchisor's performance (William, Gillis, & Xiaoli, 2020).

However, few studies have investigated the relationship between non-financial indicators and financial performance. Another study measured the performance of franchised units of a single brand by one-year sales level (Brand et al., 2017). According to the authors, there are several advantages when considering the result of sales, given that franchisors' fees are generally based on sales. Structural, resource, and relational factors between franchisor-franchisee affect performance, with different benefits and harms for franchises with different performances (low, medium, and high). The unique aspect of this study is the inclusion of franchise performance as a contingency variable.

Franchising is an important form of entrepreneurship, but there is a lack of literature elucidating the strategic and performance issues that occur in franchising. Thus, factors such as knowledge sharing, trust, conflict management, and brand reputation are key factors that increase the willingness of franchisees to remain in the franchise system, given the occurrence of financial performance (Wu, Chih-Wen, 2015). In this way, franchise branches can serve as a reference for franchised units in terms of management and are a more guaranteed means of achieving expected performance (Scott Jr. & Churchward, 1995).

The development and expansion of franchises demand the need for control from franchisees, which occurs through performance evaluation. This activity seeks to improve the business and requires control to assist in its evolution and achievement of goals (Lavieri et al., 2016). Therefore, performance evaluation is one of the instruments that help promote business, and its different models were created to assist in the organization's managerial administration.

Given the scenario of failure of some companies, entrepreneurs are not recommended to invest their capital in something unsafe; that is, many people look for an investment that offers little risk with the possibility of success. Along these lines, entrepreneurship is a task that requires dedication and knowledge of the field in which it operates, but risks can be minimized as the business model already exists on the market and has already been tested, as occurs in the franchise sector. Therefore, the business model represented by franchises can present greater financial performance than conventional companies (Madanoglu et al., 2011).

The franchise business model is widely and increasingly used by entrepreneurs seeking growth through geographic expansion. Franchising is an economically important form of entrepreneurship (Scott, Venkatesh, and Ashwin, 2006). Business franchise models are found in a variety of industries, from the Internet to banking. Still, they are most common in food and beverage establishments, business services, and retail (Lafontaine, 1992; Shane, 1996).

From this perspective, the difference in performance between franchises and conventional companies lies in the franchisor market orientation, which indicates that the franchisee's operating

strategies are based on differentiation or cost, which directly intervenes in financial and non-financial performance (Lee et al., 2015). Thus, it is possible to say that franchise performance is a reflection of market orientation. Therefore, when considering investing in a project or business, it is necessary to verify that management can delay, expand, reduce, abandon or change projects at different stages of the operational life cycle. Trigeorgis (1993) argues that management must adjust and be flexible to cope with changing market conditions. For the author, this flexibility expands investment opportunities, increases the possibility of growth, and limits losses''.

In this scenario, performance serves as a thermometer that measures an organization's ability to uphold its values and produce with its available resources (Tchouaket et al., 2012). At this point, management control must seek performance evaluations that will aid in defining and implementing strategies, leading to improvements in organizational performance (Malagueño et al., 2018). According to Nerreklit (2008), a performance evaluation system enables organizational control, measurement, and planning. For Abed Alfetah et al. (2018), performance measurement and evaluation processes represent a step in the organization's regulatory system, a process made challenging yet facilitated by the precision of performance measures. The authors reinforce that measurement criteria must be clear and precise in order to obtain faster and facilitated assessments. Measuring performance involves recognizing performance levels based on predetermined standards and indicators. The practice has shown that there are both acceptable and unacceptable deviations in many cases, which require study to identify and address them.

Thus, the presence of information and communication systems within an organization simplifies the work to be carried out (Abed Alfetah et al., 2018). Harbor (1997) posits that a performance measure quantifies an entity's actions, serving as a parameter of efficiency or effectiveness in decision-making. Conversely, Theodore et al. (2017) emphasize that the absence of a performance measurement system negatively impacts an organization's overall performance and affects human behavior, given that human nature is constantly seeking parameters to validate behaviors.

It is generally believed that performance evaluation models developed for large organizations can be applied to small and medium-sized enterprises (SMEs) with little or no modifications. This belief stems from the assumption that models developed specifically for large, complex organizations must be robust enough to handle the complexity of smaller organizations. However, while SMEs share some similarities with large organizations, they differ significantly (McAdam & Kelly, 2002).

Neely and Bourne (2000) report that performance measurement initiatives often fail due to poor design and implementation difficulties. The performance measures selected in this study include innovation, competitiveness, creativity, effectiveness, productivity, efficiency, and profitability (Sink & Tuttle, 1989; Rolstadas, 1998). As these measures are based on people's perceptions within the organization, they can be considered lagging indicators that depict the final result of an action, typically well after its completion. Productivity measures are often complex; hence, at the organizational level, a comprehensive multifactor productivity measure is sufficient to provide information about the organization's long-term health (Baines, 1997).

Efficiency is inherent in any activity but is challenging to measure (O'Donnel & Duffy, 2002). Profitability is calculated through subjective measures (Panayides, 2006).

Therefore, these studies highlight the need for further research exploring the interaction among the constructs. The empirical results presented in the literature suggest a performance evaluation system in five dimensions: a) sales, b) profit, c) number of clients, d) client satisfaction, and e) delivery of services/ products within the established deadlines (Neely, Gregory, and Platts, 1995).

Sarasvathy (2001) states that the anatomy of a decision using the causation approach involves a) A goal to pursue or a decision to be made, usually specific and well-structured. B) A set of alternative means or causes that can emerge from the decision process. C) Constraints on potential means, usually imposed by the environment. D) Criteria for selecting the means (a traditional criterion is the maximization of expected returns). Furthermore, causation logic can have different effects on performance, depending on the level of the venture's technological intensity (Kristinsson et al., 2016). Entrepreneurs whose behavior exhibits characteristics of causation logic tend to achieve higher performance because they plan more. Planning allows the entrepreneur to seek out key resources, knowledge, and partnerships in advance, contributing to superior business performance. Therefore, causation behavior is expected to positively affect the entrepreneur's income.

Thus, Hypothesis 3 emerges from this theoretical perspective:

H3: The causation approach has a mediating effect on the relationship between the type of venture created and its performance.

The recent COVID-19 pandemic impacted businesses, including accounting ventures. The unpredicted circumstances led to widespread efforts to redesign business models to maintain financial sustainability. This event emphasizes the elements of the effectuation theory, which leads to Hypothesis 4

regarding a mediating effect in the relationship between the type of accounting venture and performance.

H4: The effectuation approach has a mediating effect on the relationship between the type of venture created and its performance.

Therefore, it is reasonable to assume that the types of ventures initiated as a result of decision-making processes rooted in causation or effectuation exhibit different performance levels. Franchises, which typically emerge from processes aligned with the causation approach, demonstrate superior performance. Based on this, Hypothesis 5 can be stated as follows:

H5: The types of ventures present different performance levels, with franchises sowing higher performance compared to independent companies.

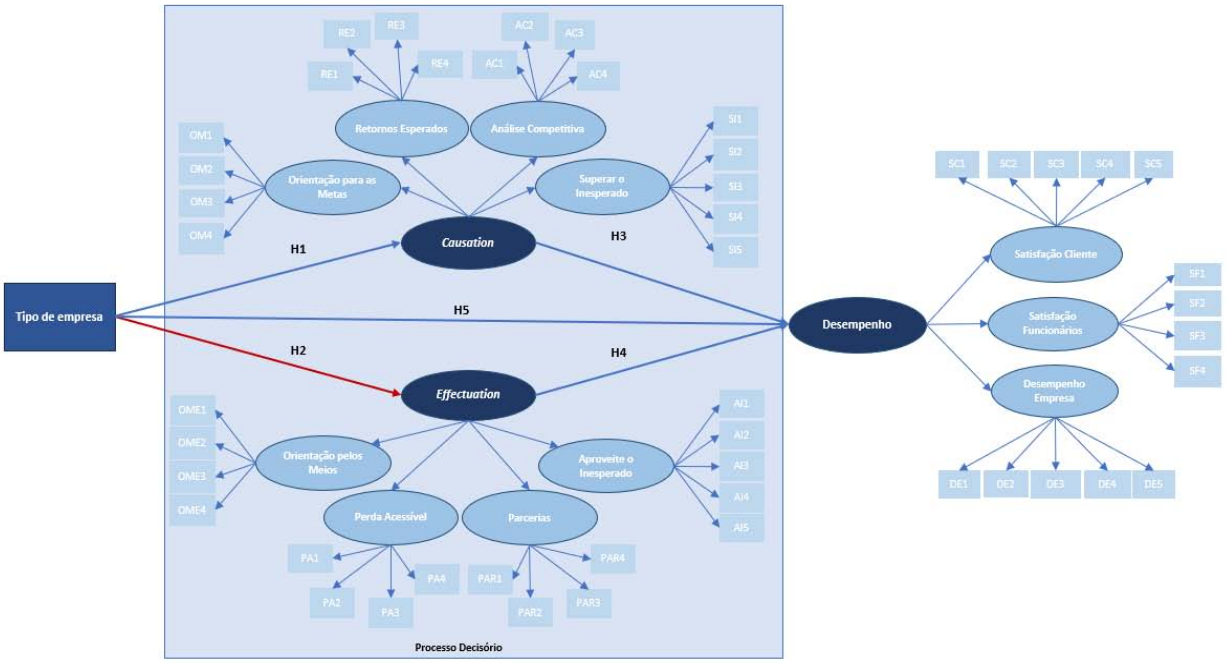
The section below presents the methodological procedures adopted to test the hypotheses that emerged from the theoretical discussion.

III. Methodology

a) Hypotheses

Quantitative research often involves testing hypotheses (Morgan, 2015), and the themes addressed extend beyond purely descriptive or categorical aspects (Morse, 2008). From a quantitative perspective, purely descriptive themes closely relate to isolated variables, specifying measurable content (Morgan, 2015).

Figure 1 illustrates the hypotheses of this study, offering the complete theoretical model to be tested. The hypotheses were tested by adjusting the model based on inputs obtained in the literature.



Source: Research data

Figure 1: Theoretical model

Research Hypotheses

H1: The causation decision-making approach is more likely to result in starting a franchise.

H2: The effectuation decision-making approach is more likely to result in starting an independent company.

H3: The causation approach has a mediating effect on the relationship between the type of venture created and its performance.

H4: The effectuation approach has a mediating effect on the relationship between the type of venture created and its performance.

H5: The types of ventures present different performance levels, with franchises sowing higher performance compared to independent companies.

b) Research design

i. Pre-test

The pre-test was conducted in February 2023. Managers and owners of six accounting companies – three franchises and three independent firms – participated in responding to the instrument. The goal was to identify any distortions in understanding the adapted questions and to exclude the possibility of alternative interpretations during the survey.

The suitability of individual scale items was assessed for subsequent analysis during the pre-test. This evaluation considered their apparent validity, wording concerns, and other relevant aspects (Howard, 2019). Based on feedback from participating managers, questions that were difficult to understand or had

ambiguous interpretations were reformulated. The definitive questionnaire was then administered between May and July 2023.

ii. *Population, sample, and survey*

The research population consisted of accounting businesses – both franchises and independent firms – considered legal entities by the Brazilian Federal Revenue Service, registered with the Brazilian Federal Accounting Council (CFC) in 2023 (CFC, 2023), and regular members of the council's regional offices located throughout the country. The number of Brazilian accountant entrepreneurs was collected from the CFC database (CFC, 2023).

Data collection occurred online between April and July 2023, utilizing the CFC database. The questionnaire was accessible via the academic research webpage managed by the CFC. Managers and owners of the companies were invited to participate via email sent by the Union of Accounting Offices of Pará (SESCON), as well as through social media platforms such as WhatsApp. The franchises were initially identified through a Google search, followed by direct contact with the franchisors. The franchisors were asked to forward the questionnaire link to their franchisees.

The research subjects were the managing owners of the accounting enterprises. The sample consisted of 718 respondents: 312 managing owners of accounting franchises and 406 managing owners of independent accounting firms. The sample size was considered adequate when considering the methodology proposed by Kock and Hadaya (2018). Because the study conducted a multigroup analysis, the sample should have at least 155 respondents for each group, which was achieved (the group of independent companies had 406 respondents, and the group of accounting franchises had 312).

The questionnaire was structured, standardized, and adapted considering three dimensions: Decision-making process with a causation logic, decision-making process with an effectuation logic (adapted from Appelhoff, Mauer, Collewart, & Brettel, 2015), performance (adapted from Neely, Gregory, & Plattys, 1995). The responses were collected online using the Google Forms tool embedded in the CFC website. The Google form allowed for the automation of invitations to fill out the questionnaires, as well as data collection and tabulation.

The questions/items were adapted to address this research's objectives and capture the views and perceptions of the owners/managers of accounting enterprises. Respondents used a 7-point Likert agreement scale (ranging from 1: completely disagree to 7: completely agree). The items were clustered based on the characteristics of the enterprise and its leading manager.

IV. Data Analysis and Discussion

The data set comprised 61 variables, of which 13 were intended to characterize the subjects, while the remaining 48 were associated with 11 first-order constructs (goal-oriented, expected returns, competitive analysis, overcoming unexpected events, orientation by means, affordable loss, partnerships, make the most of unexpected opportunities, client satisfaction, employee satisfaction, and company performance). Additionally, there were 3 second-order constructs (causation, effectuation, and performance). The research counted 718 respondents, of which 406 were managing owners of independent accounting companies, and 313 were managing owners of accounting franchises.

The data was analyzed using partial least squares structural equation modeling (PLS-SEM). As mentioned before, causation, effectuation, and performance were second-order constructs, meaning they were not directly formed by their items but rather through latent variables (indicators). The Two-Stage approach was adopted to deal with this characteristic of the measurement structure. This approach uses the scores of the first-order constructs as items of the second-order construct (Hair et al., 2021). Therefore, first, the scores of the first-order latent variables were calculated using factor analysis, and subsequently, the structural equation model was adjusted.

The analysis addressed reliability, dimensionality, and convergent validity to assess the quality and validity of the first-order constructs. In the assessment of the constructs' reliability, two metrics widely recognized in the literature were applied: Cronbach's alpha (CA) and composite reliability (CR), as proposed by Chin et al. (1998). As highlighted by Tenenhaus et al. (2005), both CA and CR must present values above 0.70 to indicate satisfactory reliability of the construct. For Hair et al. (2021), a threshold of 0.60 is acceptable in exploratory research.

The dimensionality of the constructs was assessed using Kaiser's criterion (1958). This criterion determines the number of factors to be maintained in the exploratory factor analysis, which, in turn, indicates the number of dimensions of the construct. In assessing convergent validity, the average variance extracted (AVE) criterion was applied, as proposed by Fornell and Larcker (1981). AVE represents the average proportion of shared variance between the latent construct and its items. Henseler et al. (2009) recommend AVE values greater than 50% to ensure convergent validity. According to Nunnaly et al. (1994), values greater than 40% are acceptable in exploratory research.

When using the factorial solution, evaluating its adequacy to the research data is essential. For this purpose, the Kaiser-Meyer-Olkin (KMO) sample adequacy measure was used. The measure indicates the proportion of variance shared between the variables

and ranges from 0.0 to 1.0. The closer the KMO value is to 1.0 (unit), the more appropriate the sample will be for applying exploratory factor analysis. In general, it is adequate to conduct exploratory factor analysis when the KMO value exceeds 0.50.

To verify the validity of the measurement model, which evaluates the ability of the indicators of each construct to represent their respective concept accurately, reliability, dimensionality, and convergent validity were evaluated again, in addition to discriminant validity.

The Bootstrap method also played an important role in calculating the confidence intervals of the measurement model weights and the structural model coefficients. Thus, it was possible to assess the variability of the estimated parameters, thereby validating the stability of the results obtained (Hair et al., 2021).

The structural model's adjustment quality was evaluated using the R^2 coefficient and goodness of fit (GoF) statistics, as proposed by Tenenhaus et al. (2004). Path modeling was used to verify the mediating role of the causation and effectuation approach in the relationship between the type of venture resulting from the decision-making process and the performance of the created enterprise, based on the methodology proposed by Baron and Kenny (1986).

Spearman correlation was used to compare the indicators extracted from the model with the ordinal variables, whereas the Mann-Whitney and Kruskal-Wallis tests were used to compare indicators with categorical variables (Hollander, Wolfe, & Chicken, 2013). Multiple comparisons of the Kruskal-Wallis test were made using the Mann-Whitney test with Holm correction (Holm, 1979). The analyses were performed in R, version 4.3.1 (R Core Team, 2023).

a) Descriptive Analysis

i. *Characterization Variables*

Table 1 presents a descriptive analysis of the respondent's characterization variables:

- 35.10% of respondents were between 35 and 40 years old. Regarding gender, 50.28% were female, and 38.30% were male. Furthermore, 53.48% were married, and 95.26% had higher education.
- 98.75% of all respondents stated they were entrepreneurs, and 56.55% of all respondents stated they started their independent firm. Among the 98.75% who identified as entrepreneurs, 57.24% were sole owners.
- 13.37% of respondents were from the Brazilian state of Pará, and 38.86% had 6 to 10 years of experience in accounting.
- 67.55% of respondents had 1 to 5 employees, and 51.53% had an average investment of BRL 31,000.00 to BRL 40,000.00. Furthermore, 84.76% stated they had only one company, and 50.14% had a gross monthly revenue of BRL 41,000.00 to BRL 50,000.00.

Table 1: Descriptive analysis of characterization variables

Variable	Category	N	%
Age	25 to 34 years	159	22.14
	35 to 44 years	252	35.10
	45 to 54 years	153	21.31
	Over 54 years	154	21.45
Sex	Female	361	50.28
	Male	275	38.30
	I prefer not to respond	82	11.42
Education	High school	2	0.28
	Higher education	684	95.26
	Master	30	4.18
	PhD	2	0.28
Marital state	Single	192	26.74
	Married	384	53.48
	Separated/Divorced	136	18.94
	Widowed	6	0.84
Employment relationship	Self-employed	1	0.14

	Entrepreneur	709	98.75
	Full-time work	8	1.11
Participation in the company	Partner	307	42.76
	Sole owner	411	57.24
Type of venture	Franchise	312	43.45
	Independent firm	406	56.55
State	AC	14	1.95
	AL	14	1.95
	AM	41	5.71
	AP	5	0.70
	BA	40	5.57
	CE	39	5.43
	DF	20	2.79
	ES	23	3.20
	GO	27	3.76
	MA	28	3.90
	MG	28	3.90
	MS	3	0.42
	MT	4	0.56
	PA	96	13.37
	PB	7	0.97
	PE	32	4.46
	PI	21	2.92
	PR	32	4.46
	RJ	48	6.69
	RN	18	2.51
	RO	9	1.25
	RR	16	2.23
	RS	30	4.18
	SC	26	3.62
	SE	18	2.51
	SP	62	8.64
	TO	17	2.37
Experience - Accounting	1 to 5 years	61	8.50
	6 to 10 years	279	38.86
	11 to 15 years	18	2.51
	15 to 20 years	126	17.55
	Over 21 years	234	32.59
Number of employees	1 to 5	485	67.55
	6 to 10	181	25.21
	11 to 15	34	4.74
	15 to 20	18	2.51
Average Investment	BRL 10,000.00 to BRL 20,000.00	18	2.51
	BRL 21,000.00 to BRL 30,000.00	153	21.31
	BRL 31,000.00 to BRL 40,000.00	370	51.53

	BRL 41,000.00 to BRL 50,000.00	143	19.92
	Over BRL 50,000.00	34	4.74
Number of companies owned	1 company	606	84.76
	2 to 5	97	13.57
	6 to 10	8	1.12
	Over 15	4	0.56
Gross monthly revenue	BRL 10,000.00 to BRL 20,000.00	8	1.11
	BRL 21,000.00 to BRL 30,000.00	1	0.14
	BRL 31,000.00 to BRL 40,000.00	112	15.60
	BRL 41,000.00 to BRL 50,000.00	360	50.14
	Over BRL 50,000.00	237	33.01

ii. *Construct Variables*

Table 2 presents a descriptive analysis of the construct variables. Therefore, it can be highlighted that:

- In the constructs goal-oriented, expected returns, competitive analysis, overcoming unexpected events, orientation by means, partnerships, make the most of unexpected opportunities, client satisfaction, employee satisfaction, and company performance, individuals tended to agree with all items.
- In the construct affordable loss, individuals neither agree nor disagree with items AL3 ("We carefully considered the potential risk for the creation of the company") and AL4 ("Investment decisions were based mainly on potential risks of losses") and disagree with items AL1 ("Considerations about potential losses were decisive for the company") and AL2 ("The selection of options for our company was based mainly on minimizing risks and costs").

Table 2: Descriptive analysis of the construct variables.

Constructs		Items	Average	SD	CI - 95%[1]
Causation	Goal-oriented	GO1	5.00	1.85	[4.87;5.13]
		GO2	4.87	1.94	[4.74;5.01]
		GO3	4.84	1.97	[4.68;4.98]
		GO4	4.83	1.97	[4.68;4.97]
	Expected return	ER1	4.99	1.92	[4.86;5.12]
		ER2	4.96	1.91	[4.81;5.10]
		ER3	4.96	1.92	[4.82;5.10]
		ER4	4.94	1.93	[4.81;5.09]
	Competitive analysis	CA1	4.97	2.00	[4.82;5.11]
		CA2	4.95	1.95	[4.80;5.09]
		CA3	4.94	1.95	[4.79;5.08]
		CA4	4.87	2.00	[4.73;5.02]
	Overcome unexpected events	UE1	4.90	2.03	[4.75;5.06]
		UE2	4.90	1.98	[4.75;5.04]
		UE3	4.91	1.97	[4.76;5.05]
		UE4	4.92	1.97	[4.78;5.06]
		UE5	4.91	1.95	[4.77;5.06]
Effectuation	Orientation by means	OME1	5.09	2.19	[4.93;5.26]
		OME2	5.06	2.21	[4.90;5.23]
		OME3	5.02	2.25	[4.85;5.20]
		OME4	5.07	2.22	[4.91;5.22]
	Affordable loss	AL1	3.79	1.50	[3.69;3.90]
		AL2	3.87	1.55	[3.74;3.98]
		AL3	3.93	1.65	[3.81;4.04]
		AL4	3.98	1.69	[3.86;4.10]

	Partners	PAR1	4.51	1.97	[4.36;4.65]
		PAR2	4.66	2.17	[4.50;4.82]
		PAR3	4.73	2.15	[4.57;4.89]
		PAR4	4.74	2.11	[4.58;4.89]
	Make the most of unexpected opportunities	UO1	4.63	2.15	[4.48;4.79]
		UO2	4.68	2.15	[4.53;4.84]
		UO3	4.72	2.14	[4.57;4.87]
		UO4	4.72	2.20	[4.57;4.88]
		UO5	4.75	2.24	[4.59;4.92]
Performance	Client Satisfaction	CS1	6.01	1.01	[5.93;6.08]
		CS2	6.27	0.87	[6.20;6.33]
		CS3	6.53	0.78	[6.48;6.59]
		CS4	6.59	0.75	[6.53;6.64]
		CS5	6.59	0.77	[6.53;6.64]
	Employee Satisfaction	ES1	6.10	0.97	[6.03;6.17]
		ES2	6.25	0.90	[6.19;6.32]
		ES3	6.42	0.87	[6.36;6.48]
		ES4	6.53	0.83	[6.46;6.59]
	Company Performance	CP1	6.42	0.81	[6.36;6.47]
		CP2	6.39	0.90	[6.33;6.46]
		CP3	6.52	0.83	[6.46;6.58]
		CP4	6.67	0.76	[6.61;6.72]
		CP5	6.50	0.88	[6.44;6.57]

[1] *Bootstrap interval.*

Respondents tended to agree more with the items of the construct performance, where the average ranged from 6.01 to 6.67. For the items of the causation and effectuation constructs, the lowest and highest means were 4.83 and 5.00, and 3.79 and 5.09, respectively.

b) Factor analysis

Table 3 presents the factor loadings, communalities, and weights of the factor analysis. It is noteworthy that the loads were high in all constructs. Therefore, it was not necessary to remove any item.

Table 3: Factor Analysis of first-order constructs.

Constructs		Items	C.F.[1]	Com.[2]	Peso (α)
Causation	Goal-oriented	OM1	0.983	0.967	0.251
		OM2	0.991	0.982	0.253
		OM3	0.992	0.984	0.253
		OM4	0.990	0.981	0.253
	Expected return	RE1	0.966	0.933	0.256
		RE2	0.982	0.965	0.260
		RE3	0.973	0.947	0.258
		RE4	0.966	0.933	0.256
	Competitive analysis	AC1	0.961	0.923	0.257
		AC2	0.980	0.961	0.262
		AC3	0.969	0.939	0.259
		AC4	0.957	0.916	0.256
	Overcome unexpected events	SI1	0.950	0.902	0.203
		SI2	0.977	0.955	0.209
		SI3	0.971	0.943	0.208
		SI4	0.967	0.935	0.207
		SI5	0.971	0.943	0.208

Effectuation	Orientation by means	OME1	0.990	0.979	0.252
		OME2	0.994	0.987	0.253
		OME3	0.993	0.985	0.253
		OME4	0.989	0.978	0.252
	Affordable loss	PA1	0.952	0.907	0.259
		PA2	0.967	0.936	0.263
		PA3	0.964	0.930	0.262
		PA4	0.952	0.906	0.259
	Partners	PAR1	0.978	0.956	0.255
		PAR2	0.980	0.961	0.256
		PAR3	0.979	0.959	0.256
		PAR4	0.976	0.953	0.255
	Make the most of unexpected opportunities	AI1	0.972	0.945	0.204
		AI2	0.977	0.955	0.205
		AI3	0.975	0.951	0.205
		AI4	0.979	0.958	0.205
		AI5	0.978	0.956	0.205
Performance	Client Satisfaction	SC1	0.821	0.675	0.238
		SC2	0.901	0.812	0.261
		SC3	0.831	0.691	0.241
		SC4	0.827	0.684	0.240
		SC5	0.766	0.587	0.222
	Employee Satisfaction	SF1	0.881	0.777	0.290
		SF2	0.887	0.787	0.292
		SF3	0.870	0.756	0.286
		SF4	0.846	0.716	0.279
	Company Performance	DE1	0.883	0.779	0.262
		DE2	0.793	0.629	0.235
		DE3	0.828	0.686	0.246
		DE4	0.828	0.686	0.246
		DE5	0.768	0.589	0.228

[1] Factor loading; [2] Commonality.

Equations of the causation first-order constructs:

$$GO = 0.251 \times GO1 + 0.253 \times GO2 + 0.253 \times GO3 + 0.253 \times GO$$
$$ER = 0.256 \times ER1 + 0.260 \times ER2 + 0.258 \times ER3 + 0.256 \times ER4$$
$$CA = 0.257 \times CA1 + 0.262 \times CA2 + 0.259 \times CA3 + 0.256 \times CA4$$
$$UE = 0.203 \times UE1 + 0.209 \times UE2 + 0.208 \times UE3 + 0.207 \times UE4 + 0.208 \times UE5$$

Equations of the effectuation first-order constructs:

$$GO = 0.252 \times GO1 + 0.253 \times GO2 + 0.253 \times GO3 + 0.252 \times GO4$$
$$AL = 0.259 \times AL1 + 0.263 \times AL2 + 0.262 \times AL3 + 0.259 \times AL4$$
$$PAR = 0.255 \times PAR1 + 0.256 \times PAR2 + 0.256 \times PAR3 + 0.255 \times PAR4$$
$$UO = 0.204 \times UO1 + 0.205 \times UO2 + 0.205 \times UO3 + 0.205 \times UO4 + 0.205 \times UO5$$

Equations of the performance first-order constructs:

$$CS = 0.238 \times CS1 + 0.261 \times CS + 0.241 \times CS3 + 0.240 \times CS4 + 0.222 \times CS5$$
$$ES = 0.290 \times ES1 + 0.292 \times ES2 + 0.286 \times ES3 + 0.279 \times ES4$$
$$CP = 0.262 \times CP1 + 0.235 \times CP2 + 0.246 \times CP3 + 0.246 \times CP4 + 0.228 \times CP5$$

Table 4 presents the results of the reliability, dimensionality, and convergent validity analyses of the constructs:

- All constructs reached the required levels of reliability. CA and CR indices were greater than 0.70.
- According to Kaiser's criterion, all constructs were unidimensional.
- The AVE values were greater than 0.50 for all constructs, thus demonstrating their convergent validation.
- The factor analysis adjustment was adequate since KMO was greater than 0.50 in all constructs.
-

Table 4: Validation of first-order constructs.

Constructs		Items	CA[1]	CR[2]	Dim.[3]	AVE[4]	KMO[5]
Causation	Goal-oriented	4	0.992	0.989	1	0.978	0.870
	Expected return	4	0.980	0.972	1	0.944	0.831
	Competitive analysis	4	0.976	0.967	1	0.935	0.833
	Overcome unexpected events	5	0.983	0.974	1	0.936	0.907
Effectuation	Orientation by means	4	0.994	0.991	1	0.983	0.863
	Affordable loss	4	0.970	0.960	1	0.920	0.848
	Partnerships	4	0.985	0.979	1	0.957	0.860
	Make the most of unexpected opportunities	5	0.988	0.981	1	0.953	0.931
Performance	Client Satisfaction	5	0.883	0.869	1	0.690	0.776
	Employee Satisfaction	4	0.893	0.878	1	0.759	0.813
	Company Performance	5	0.876	0.861	1	0.674	0.800

[1] Cronbach's Alpha, [2] Composite Reliability, [3] Dimensionality, 4 Average variance extracted

In the factor analysis carried out for the first-order constructs, all items presented adequate factor loadings with values greater than 0.70. In their validation, the values of Cronbach's alpha, composite reliability, number of factors, AVE, and KMO were satisfactory, demonstrating the reliability, unidimensionality, convergent validation, and adequacy of the factor analysis adjustment.

c) *Description of first-order indicators*

Table 5 presents the description of the indicators created from the factor analysis. Therefore, all indicators showed average agreement except for the affordable loss indicator. The average of the affordable loss indicator was 3.89 with a confidence interval of [3.79;4.00] with low agreement, while that of the company performance indicator was 6.50, with a range of [6.45;6.55], thus having the greatest agreement.

Table 5: Description of first-order indicators.

Indicators		Average	D.P.	1ºQ	2ºQ	3ºQ	I.C. - 95%[1]
Causation	Goal-oriented	4.89	1.91	3.25	3.75	7.00	[4.75;5.02]
	Expected return	4.96	1.87	3.50	4.00	7.00	[4.83;5.11]
	Competitive analysis	4.93	1.91	3.25	4.01	7.00	[4.78;5.08]
	Overcome unexpected events	4.91	1.91	3.21	4.20	7.00	[4.77;5.06]
Effectuation	Orientation by means	5.06	2.20	3.00	7.00	7.00	[4.90;5.21]
	Affordable loss	3.89	1.53	3.00	4.00	5.00	[3.79;4.00]
	Partnership	4.66	2.05	2.75	6.00	6.50	[4.51;4.81]
	Make the most of unexpected opportunities	4.70	2.13	2.80	6.00	6.60	[4.54;4.86]
Performance	Client satisfaction	6.39	0.70	6.00	6.22	7.00	[6.34;6.44]
	Employee satisfaction	6.32	0.78	5.99	6.25	7.00	[6.26;6.38]
	Company performance	6.50	0.68	6.20	6.60	7.00	[6.45;6.55]

[1] Bootstrap Interval.

d) Structural Equation Modeling (SEM)

i. *Measurement model (Outer model)*

In the measurement model, all items presented adequate factor loadings with values greater than 0.70. Furthermore, bootstrap confidence intervals (CI – 95%) showed that all weights were significant, thus highlighting the importance of all items for forming indicators to represent the constructs.

Table 6 presents the weights, factor loadings and commonalities of the measurement model:

Table 6: Measurement model

Constructs		Weight(α)	I.C.-95%[1]	C.F.[2]	Com.[3]
Causation	Goal-oriented	0.259	[0.26; 0.26]	0.986	0.972
	Expected return	0.252	[0.25; 0.25]	0.976	0.953
	Competitive analysis	0.255	[0.25; 0.26]	0.983	0.966
	Overcome unexpected events	0.253	[0.25; 0.26]	0.980	0.961
Effectuation	Orientation by means	0.272	[0.27; 0.28]	0.978	0.957
	Affordable loss	0.215	[0.21; 0.22]	0.877	0.770
	Partners	0.278	[0.27; 0.28]	0.982	0.963
	Make the most of unexpected opportunities	0.279	[0.27; 0.28]	0.977	0.954
Performance	Client satisfaction	0.435	[0.40; 0.48]	0.926	0.858
	Employee satisfaction	0.335	[0.31; 0.36]	0.897	0.805
	Company performance	0.338	[0.31; 0.37]	0.877	0.768

[1] Bootstrap interval; [2] Factorial weight; [3] Commonality.

Measurement model equations:

$$Causation = 0.258 \times GO + 0.250 \times ER + 0.257 \times CA + 0.253 \times UE$$

$$Effectuation = 0.267 \times OME + 0.215 \times AL + 0.280 \times PAR + 0.282 \times UO$$

$$Performance = 0.435 \times CS + 0.332 \times ES + 0.341 \times CP$$

Table 7 presents the validation of the measurement model:

- All constructs reached the required levels of reliability, given that the CA or CR indices were greater than 0.70.
- According to Kaiser's criterion, all constructs were unidimensional.
- The AVE values were greater than 0.50 in all constructs, thus demonstrating their convergent validation.
- According to the criteria of Fornell and Larcker (1981), there was discriminant validation in all constructs, given that the maximum shared variance was lower than their respective AVEs.

Table 7: Validation of the measurement model.

Constructs	Items	CA[1]	CR[2]	Dim[3]	AVE[4]	VCM[5]
Causation	4	0.987	0.990	1	0.963	0.896
Effectuation	4	0.967	0.976	1	0.911	0.833
Performance	5	0.884	0.928	1	0.810	0.553

[1]Cronbach's alpha; [2]Composite reliability; [3]Dimensionality; [4]Average variance extracted; [5]Maximum shared variance.

In the measurement model, all items presented adequate factor loadings with values greater than 0.70. Furthermore, through the bootstrap confidence intervals, it was possible to verify that all weights were significant, thus highlighting the importance of all items for forming the indicators. In their validation, the values of Cronbach's alpha, composite reliability, number of factors, AVE, and VCM were satisfactory, demonstrating reliability, unidimensionality, convergent validation, and discriminant validity.

All constructs reached the required levels of reliability, given that the CA or CR indices were greater than 0.70. According to Kaiser's criterion, all constructs were unidimensional. The AVE values were greater than 0.50 in all constructs, thus demonstrating their convergent validation. Thus, according to the Fornell and Larcker (1981) criteria, all constructs had discriminant validation, given that the maximum shared variance was lower than their respective AVEs.

ii. *Structural model (Inner model)*

Table 8 presents the validation of the measurement model:

Table 8: Structural model

Endogenous	Exogenous	B	SE(β)[1]	CI -95%[2]	P-value	R^2
Causation	Type = Franchise / Independent	0.947	0.012	[0.93; 0.96]	**<0.001**	89.62%
Effectuation	Type = Franchise / Independent	-0.913	0.015	[-0.93; -0.89]	**<0.001**	83.30%
Performance	Type = Franchise / Independent	0.325	0.093	[-0.12; 0.73]	**0.001**	
	Causation	0.831	0.074	[0.57; 1.09]	**<0.001**	58.97%
	Effectuation	0.461	0.059	[0.02; 0.79]	**<0.001**	

[1] Standard error; [2] Bootstrap interval; GoF = 83.52%

Regarding causation, There was a significant difference (p-value < 0.001) in causation between the types of ventures. When the company was a franchise, causation was 0.947 [0.93; 0.96] units higher than when it was an independent firm. In other words, franchise respondents tended to rate causation higher than independent respondents, indicating that causation is more associated with franchises. The type of venture accounted for 89.62% of the variability in causation. The results suggest that the accounting franchise is more frequently associated with the causation decision-making process among the two business models studied, implying that entrepreneurs who invest in accounting franchises align with the causation theory. Welter and Kim (2018) emphasize that the theoretical foundations of the causation decision-making model are based on the predictable aspects of an uncertain future; that is, planning before execution improves human action in the face of uncertainty.

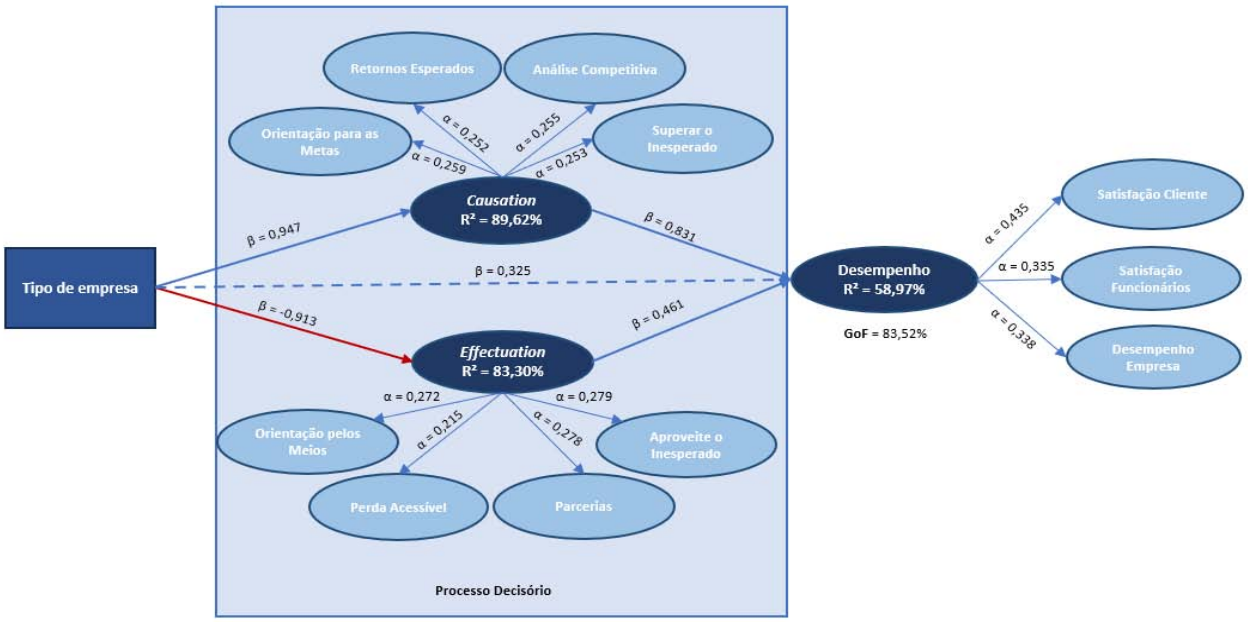
Regarding Effectuation: There was a significant difference (p-value < 0.001) in effectuation between the types of ventures. When the company was a franchise, effectuation was -0.913 [-0.93; -0.99] units lower than when it was an independent accounting firm. In other words, respondents from accounting franchises tended to rate effectuation lower than those from independent firms, indicating that effectuation is more associated with the latter. The type of venture accounted for 83.30% of the effectuation variability.

In other words, it can be said that the entrepreneur who chooses to invest in the independent type of business follows the guidelines established in the effectuation approach. In accordance with this logic, uncertainty is now seen as a resource and a process on which decision-making takes place. In association, the initial ambiguity of objectives is seen as a factor of creativity that generates opportunities as the entrepreneur is more open to taking advantage of the contingencies that arise during the creation of the new venture (Sarasvathy & Dew, 2005).

Regarding performance: There was a significant difference (p-value = 0.001) in performance between types of ventures when the company was a franchise. In this case, performance was 0.325 [-0.12; 0.73] units higher than when it was an independent accounting firm. However, the confidence interval for this effect was non-significant, highlighting a lack of validity in these results. The results showed that starting an accounting franchise is more profitable than running an independent firm.

It is also worth noting that the model presented a GoF of 83.52%, and the bootstrap confidence intervals were in agreement with the results found via p-value, thus demonstrating greater validity of the results presented, except for the relationship between the type of venture and performance.

Thus, an improvement in organizations' performance toward finding a balance is more likely to occur when the decision-making is structured and formalized in a detailed, consistent, and transparent manner (Zivdar et al., 2017). Figure 2 presents the study's structural model.



Source: Elaborated by the authors

Figure 2: Structural model

Although the analysis of the previous table indicated a lack of validity in the relationship between the type of venture and performance (the bootstrap interval was not significant), the indirect and total effects revealed that both constructs were significant. This implies that, when observing the total effect, the performance was 0.692 [0.62; 0.78] units higher when the company was an accounting franchise compared to when it was an independent firm. Therefore, respondents from accounting franchises tended to rate performance higher than respondents from independent companies, indicating that franchises generally have higher performance.

Structural model equation:

$$Causation = 0.947 \times I(Type\ of\ venture = Franchise/\ own\ brand)$$

$$Effectuation = -0.913 \times I(Type\ of\ venture = Franchise/\ own\ brand)$$

$$Performance = 0.325 \times I(Type\ of\ venture = Franchise/\ own\ brand) + 0.831 \times Causation + 0.461 \times Effectuation$$

Table 9 presents the model's direct, indirect and total effects. It shows that although the analysis of the previous table indicated a lack of validity in the relationship between the type of venture and performance (the bootstrap interval was not significant), the indirect and total effects revealed that both constructs were significant. This implies that, when observing the total effect, the performance was 0.692 [0.62; 0.78] units higher when the company was an accounting franchise compared to when it was an independent firm. Therefore, respondents from accounting franchises tended to rate performance higher than respondents from independent companies, indicating that franchises generally have higher performance.

Table 9: Description of direct, indirect, and total effects

Endogenous	Exogenous	Direct effects		Indirect effects		Total effects	
		β	CI - 95%[1]	β	CI - 95%[1]	β	CI - 95%[1]
Causation	Type = Franchise / Independent	0.947	[0.93; 0.96]	0.000	-	0.947	[0.93; 0.96]
Effectuation	Type = Franchise / Independent	-0.913	[-0.93; -0.89]	0.000	-	-0.913	[-0.93; -0.89]
Performance	Type = Franchise / Independent	0.325	[-0.12; 0.73]	0.366	[0.74; 0.05]	0.692	[0.62; 0.78]
	Causation	0.831	[0.57; 1.09]	0.000	-	0.831	[0.57; 1.09]
	Effectuation	0.461	[0.02; 0.79]	0.000	-	0.461	[0.02; 0.79]

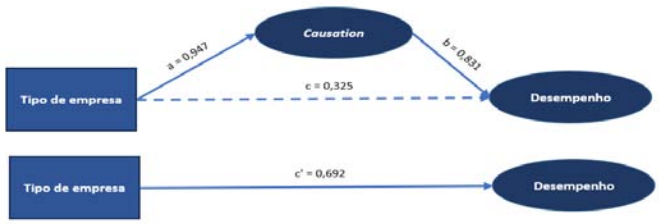
[1] *Bootstrap interval*

e) Mediating Effect

There was a mediating effect of Causation and Effectuation on the relationship between the type of venture and performance according to the methodology proposed by Baron and Kenny (1986).

Figures 4 and 5 below present the analysis of the mediating effect of causation and effectuation in the relationship between the type of venture and performance using path modeling. Thus, there was a mediating effect of causation and effectuation in the relationship between type of venture and performance, since:

1. The type of venture significantly influenced the causation and effectuation constructs (relationship "a").
2. The type of venture significantly influenced the performance construct in the absence of mediating variables (relationship "c").
3. The mediating variables significantly and exclusively affected performance (relationship "b"). This means that even after controlling the effect of the independent variable, the mediators demonstrated a direct and statistically significant impact on performance.
4. The effect of type of venture on performance weakened, ceasing to be significant in the bootstrap interval, when the mediating variables were added to the model (relationship "c").



Source: Elaborated by the authors

Figure 3: Analysis of the causation approach's mediating effect

Source: Elaborated by the authors

Figure 4: Analysis of the effectuation approach's mediating effect

f) Discussion of hypotheses tests

Table 10 shows the research hypotheses.

Table 10: Results of the hypotheses of the first structural model

H1	The causation decision-making approach is more likely to result in starting a franchise.	Confirmed
H2	The effectuation decision-making approach is more likely to result in starting an independent company.	Confirmed
H3	The causation approach has a mediation effect on the relationship between the type of venture created and its performance.	Confirmed
H4	The effectuation approach has a mediation effect on the relationship between the type of venture created and its performance.	Confirmed
H5	The types of ventures present different performance levels, with franchises sowing higher performance compared to independent companies.	Confirmed

Source: Elaborated by the authors

Structural loads were significant, suggesting that the hypotheses raised in this study were confirmed. Regarding H1, the causation decision-making process varied based on the type of venture, with a tendency to lead the entrepreneur to start an accounting franchise. According to Jiang and Ruing (2017), the causation logic helps the entrepreneur make choices adopting strategies that are useful when the scenario suggests a predictable future, the objectives are clear, and the environment is stable regardless of the entrepreneurs' actions. Considering these perspectives, the causation approach relies on decision analysis and planning. In contrast, effectuation operates with a non-predictive logic, where entrepreneurs apply emerging strategies to

seize opportunities that arise during the entrepreneurial process (Chandler et al., 2011). The causation decision-making logic is grounded in predictable aspects of an uncertain future, emphasizing that planning before execution enhances human action in the face of uncertainty (Welter & Kim, 2018).

Hence, the causation perspective characterizes prediction-based decisions (Sarasvathy, 2001; Jiang & Ruling, 2017). In contrast, effectuation examines how entrepreneurs navigate decision-making within the context of an uncertain future (Fidelis et al., 2018).

Regarding effectuation logic, Robust relationships were found regarding the statement in H2, which highlights that the effectuation decision-making approach is more likely to result in starting an independent firm. This fact corroborates the study by Sarasvathy (2001), who proposed effectuation as a contrast to causation. In the effectuation approach, the entrepreneur controls the unpredictable future by exploring its contingencies instead of trying to accumulate knowledge to predict its uncertainties and commits, first, to focus on controllable aspects. Choices are made based on the available means and the entrepreneur's imagination (Galkina & Lundgren-Henriksson, 2017).

The findings related to hypotheses H1 and H2, when analyzed together, help to meet the second specific objective of the study, i.e., examine how the adoption of causation or effectuation approaches influences the decision for the type of venture – whether a franchise or an independent firm. The results indicated that starting an accounting franchise is related to a causation decision-making approach, and starting an independent accounting firm is related to an effectuation decision-making approach.

H3 was also confirmed, which means that the causation decision-making logic had a mediating role in the relationship between the type of venture and the performance of the enterprise created. Also, the results showed that the type of venture significantly affected performance in the absence of mediating variables.

In this context, causation logic can have different effects on performance, depending on the level of technological intensity of the enterprise (Kristinsson et al., 2016). Thus, entrepreneurs with more causation behavior characteristics tend to achieve higher performance because they have more planning. Greater planning, in turn, allows the entrepreneur to seek out key resources, knowledge, and partnerships in advance to assist in business performance. It is expected, then, that the causation behavior will have a positive effect on the entrepreneur's income.

The result confirming H4 also corroborates the studies by Sarasvathy (2008), reinforcing the understanding that the effectuation logic is suitable for understanding the creation and decision-making processes in all types of enterprises. It was possible to observe a mediating effect of effectuation on the relationship between the type of venture and performance, and the results indicated a significant influence of effectuation on performance in the sense that the higher the effectuation, the higher the performance. This demonstrates that entrepreneurs starting independent accounting firms recognized that they are more aligned with the effectuation approach and perceive high performance when following this approach. Thus, the entrepreneur identifies and seizes the means available to envision, design, and implement future plans (Dew, 2003 & Sarasvathy, 2001).

These findings are in line with studies (Tasic & Andreassi, 2008) that have already observed that the effectuation process enables several effects, even if only one or a few ideas are actually implemented. This occurs because the entrepreneur can change and adapt their goals, building other objectives over time. In addition, they can take advantage of the countless contingencies that may arise.

When analyzed together, the findings described in the tests of hypotheses H3 and H4 allow the achievement of the third specific objective, i.e., evaluate the mediating effect of using causation or effectuation approaches in decision-making. Specifically, explore how these approaches impact the relationship between the type of venture initiated and its subsequent performance.

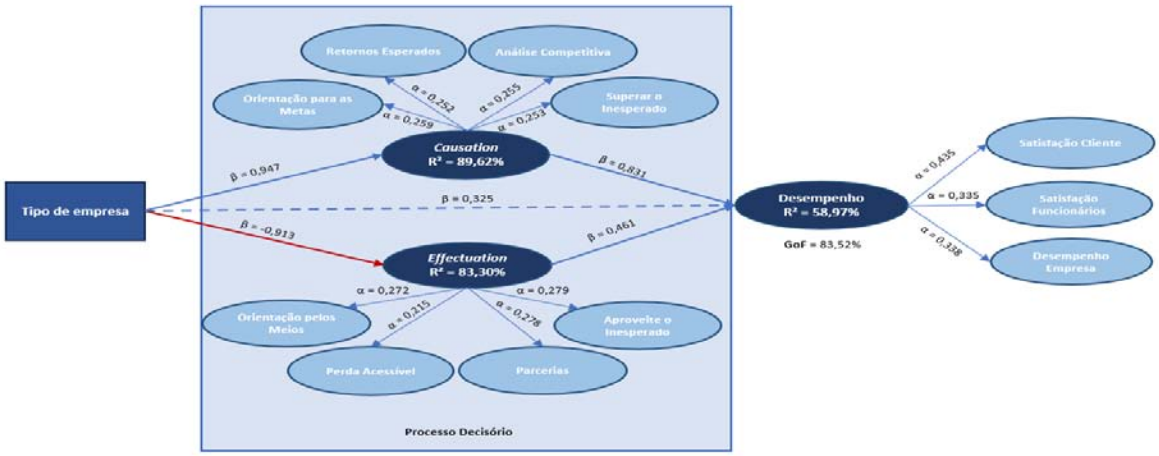
Finally, the results showed that H5 indicates a difference in performance between the two types of venture studied, with accounting franchises demonstrating higher performance when compared to independent accounting firms, i.e., respondents from accounting franchises attributed higher scores to performance than respondents from independent accounting firms.

The analysis of H5 allowed us to complete the discussion and achieve the first and fourth specific objectives of the research, i.e., (i) compare the performance of accounting franchises versus independent firms, considering the causation and effectuation approaches employed during the decision-making process when launching a new enterprise; and (iv) determine which type of venture – franchise or independent firm – demonstrates superior performance. This last effort of analysis also allowed us to meet the study's general objective of examining the decision-making process of entrepreneurs when starting an accounting franchise versus an independent firm, all within the context of causation and effectuation theories. Therefore, these two approaches are alternatives for entrepreneurs when considering to develop new ventures (Sarasvathy, 2001).

It is important to raise a counterpoint to studies that followed the work by Saravasthy (2001) and advocated a conception that both processes, causation and effectuation, are not mutually exclusive and can

occur alternatively or simultaneously and with variations conditioned by the context or choices of the entrepreneurs themselves (Harms & Holger, 2012). This occurs because the results obtained in this study show that the entrepreneur's choice between an accounting franchise or an independent accounting firm when it comes to an endeavor with superior performance will be for the franchise, which is a type of venture that has a significant relationship with the causation decision-making approach.

In the causation approach, the decision process must be structured and resolved formally (the process has to be detailed, consistent, and transparent), aiming to improve performance (finding an equilibrium) (Zivdar et al., 2017). Thus, the theory that there is no single decision-making model but different "shades of gray" and decisions are made using both logics simultaneously, as described by Da Rocha et al. (2017, p. 19), does not apply to the decision-making process of starting an accounting franchise versus an independent accounting firm in light of the causation and effectuation approaches. Figure 5 presents the structural model of the research:



Source: Elaborated by the authors

Figure 5: Structural Model

g) Description and analysis of second order indicators

Table 10 describes the indicators created from the structural equation model. The performance indicator showed high agreement. The mean for the performance indicator was 6.41, with a confidence interval of [6.35;6.45] with high agreement, while the effectuation indicator was 4.62, with a confidence interval of [4, 48;4,76], thus having less agreement.

Table 11: Description of second-order indicators

Indicators	Mean	SD	1stQ	2ndQ	3rdQ	CI 95%[1]
Causation	4.92	1.87	3.35	3.90	7.00	[4.79;5.07]
Effectuation	4.62	1.93	2.94	6.05	6.25	[4.48;4.76]
Performance	6.41	0.65	6.06	6.29	7.00	[6.35;6.45]

[1] *Bootstrap interval*

i. *Correlation between indicators and ordinal variables*

There was a significant negative correlation (p-value < 0.050) between the causation indicator and both age and experience in accounting. This means that as these variables increase, the causation indicator tends to decrease, and vice versa. Additionally, there was a significant positive correlation (p-value < 0.050) between the causation indicator and the other variables, indicating that as these variables increase, so does the causation indicator.

It is evident that in the causation approach, the success of the enterprise is not solely linked to experience but also to other variables that influence starting a high-performance accounting franchise or independent accounting firm.

A significant positive correlation (p-value < 0.050) was observed between the effectuation indicator and both age and experience in accounting. This suggests that as these variables increase, the effectuation indicator also increases. However, a significant negative correlation (p-value < 0.050) was found between the effectuation indicator and the other variables, implying that as these variables increase, the effectuation indicator decreases.

In essence, starting an independent accounting firm (which has a significant relationship with the effectuation approach), age, and experience in accounting are directly related. This shows that the older the individual and the more experience they have in accounting, the stronger the correlation. This relationship is not significant with other variables.

A significant negative correlation (p-value < 0.050) was found between the performance indicator and both age and experience in accounting. This means that as these variables increase, the performance indicator decreases. Conversely, a significant positive correlation (p-value < 0.050) was observed between the performance indicator and the other variables (excluding education), indicating that as these variables increase, so does the performance indicator.

When measuring performance, it was found that the older the individual and the more experience they have in accounting, the lower the performance. Conversely, the younger the individual and the fewer years of experience they have in accounting, the higher the performance. This suggests that these variables and others (excluding education) possess specific characteristics that lead to better results in accounting ventures. Table 11 presents the correlation between the indicators and ordinal variables.

Table 12: Correlation between indicators and ordinal variables

Variables	Causation		Effectuation		Performance	
	r[1]	P-value	r[1]	P-value	r[1]	P-value
Age	-0.36	<0.001	0.32	<0.001	-0.31	<0.001
Education	0.10	0.010	-0.14	<0.001	0.07	0.056
Experience - accounting	-0.55	<0.001	0.52	<0.001	-0.51	<0.001
Number of employees	0.17	<0.001	-0.31	<0.001	0.17	<0.001
Average investment	0.48	<0.001	-0.46	<0.001	0.50	<0.001
Number of companies owned	0.31	<0.001	-0.42	<0.001	0.29	<0.001
Growth monthly revenue	0.55	<0.001	-0.59	<0.001	0.56	<0.001

[1] *Spearman correlation*

ii. *Comparison between indicators and variables*

A significant difference (p-value < 0.050) was observed for all indicators in relation to gender. Upon examining the multiple comparisons, a difference was noted among those who preferred not to respond compared to others. The former group exhibited lower values for the causation and performance indicators and higher values for the effectuation indicator.

A significant difference (p-value < 0.050) was also found for all indicators compared to marital status. The multiple comparisons revealed a difference between separated/divorced individuals and those who were single or married. Separated/divorced individuals showed lower values for the causation and performance indicators and higher values for the effectuation indicator. Additionally, a difference was observed in the causation indicator between married and single individuals, with married individuals showing lower values.

A significant difference (p-value < 0.050) was found when comparing all indicators with participation in companies. When the respondent was a partner, the causation and performance values were higher, while the effectuation value was lower.

A significant difference (p-value < 0.050) was observed in the causation indicator among different Brazilian regions. Upon examining the multiple comparisons, the North region showed lower values in the causation indicator compared to the Northeast and Southeast regions.

Table 13: Comparison between indicators and gender

Indicators	Gender	N	Mean	SD	1st Q	2nd Q	3rd Q	P-value[1]	Multiple comparisons[2]	
									Female	Male
Causation	Female	361	5.10	1.88	3.35	4.34	7.00		-	-
	Male	275	5.12	1.93	3.38	5.90	7.00	**<0.001**	0.640	-
	I prefer not to respond	82	3.48	0.28	3.30	3.43	3.69		**<0.001**	**<0.001**
Effectuation	Female	361	4.36	1.97	2.65	4.21	6.21		-	-
	Male	275	4.45	1.91	2.87	5.00	6.19	**<0.001**	0.663	-
	I prefer not to respond	82	6.29	0.22	6.14	6.32	6.45		**<0.001**	**<0.001**
Performance	Female	361	6.45	0.66	6.08	6.49	7.00		-	-
	Male	275	6.42	0.70	6.06	6.41	7.00	**<0.001**	0.644	-
	I prefer not to respond	82	6.14	0.14	6.05	6.13	6.22		**<0.001**	**<0.001**

[1]*Kruskal-Wallis test;* [2]*Mann-Whitney test.*

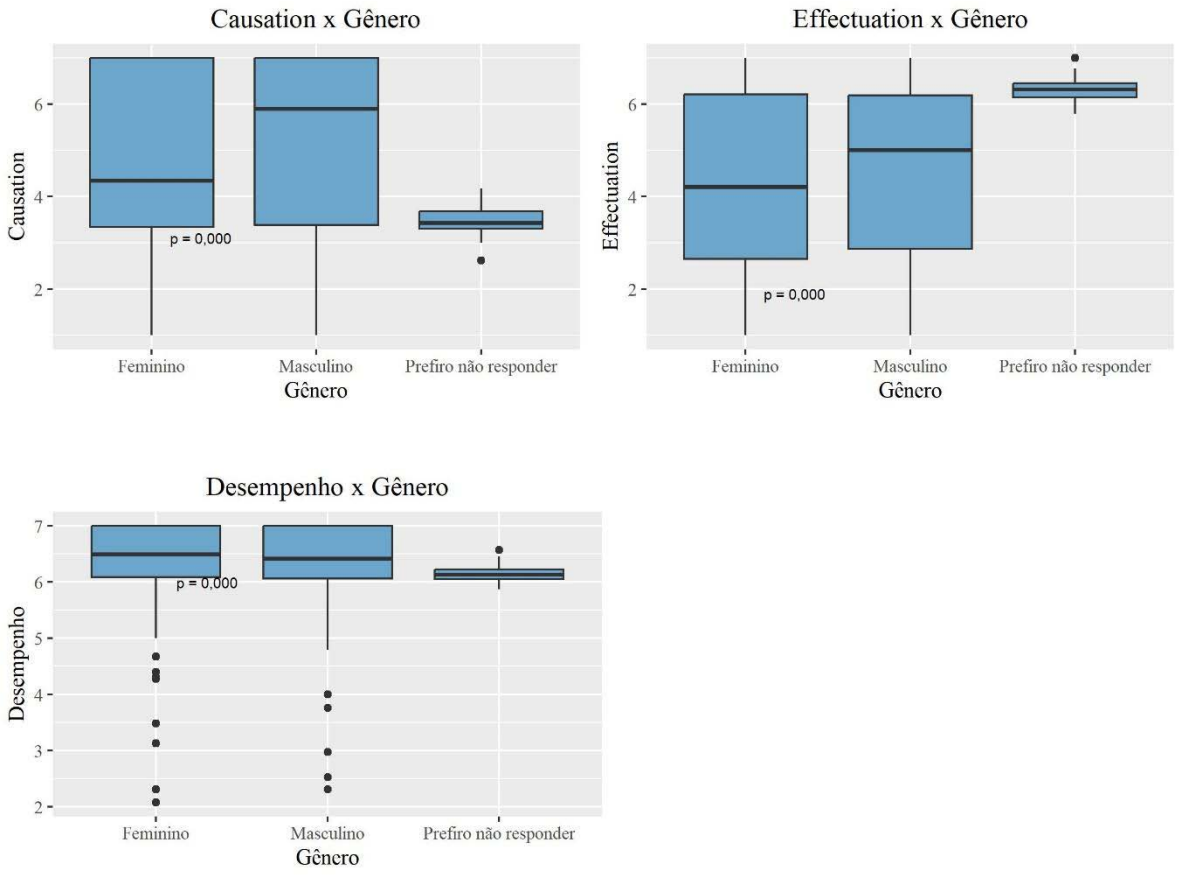


Figure 6: Comparison between indicators and gender

Table 14 presents a comparison between indicators and marital status. A significant difference (p-value < 0.050) was observed in all indicators. Upon examining multiple comparisons, a difference was noted between separated/divorced individuals when compared to single and married individuals. The latter group had lower values for the causation and performance indicators, and higher values for the effectuation indicator. Furthermore, a difference was observed in the causation indicator when comparing married individuals to single individuals, with the former presenting lower values.

Table 14: Comparison between indicators and marital status

Indicators	Marital status	N	Mean	SD	1st Q	2nd Q	3rd Q	P-value[1]	Multiple comparisons[2]		
									Single	Married	Separated
Causation	Single	192	5.43	1.81	3.54	7.00	7.00	<0.001	-	-	-
	Married	384	4.97	1.88	3.35	3.92	7.00		**0.010**	-	-
	Separated/divorced	136	4.10	1.53	3.25	3.48	4.00		**<0.001**	**<0.001**	-
	Widower	6	4.09	3.19	1.00	4.28	7.00		0.749	0.784	0.784
Effectuation	Single	192	4.17	1.94	2.45	3.26	6.18	<0.001	-	-	-
	Married	384	4.51	1.93	2.82	5.92	6.20		0.890	-	-
	Separated/divorced	136	5.52	1.58	5.85	6.14	6.35		**<0.001**	**<0.001**	-
	Widower	6	4.79	2.39	2.48	5.21	7.00		0.890	0.890	0.890
Performance	Single	192	6.52	0.65	6.12	6.89	7.00	<0.001	-	-	-
	Married	384	6.40	0.71	6.06	6.29	7.00		0.106	-	-
	Separated/divorced	136	6.27	0.41	6.04	6.17	6.43		**<0.001**	**0.003**	-
	Widower	6	6.23	0.81	5.70	6.35	7.00		0.747	0.852	0.935

[1]Kruskal-Wallis test; [2]Mann-Whitney test.

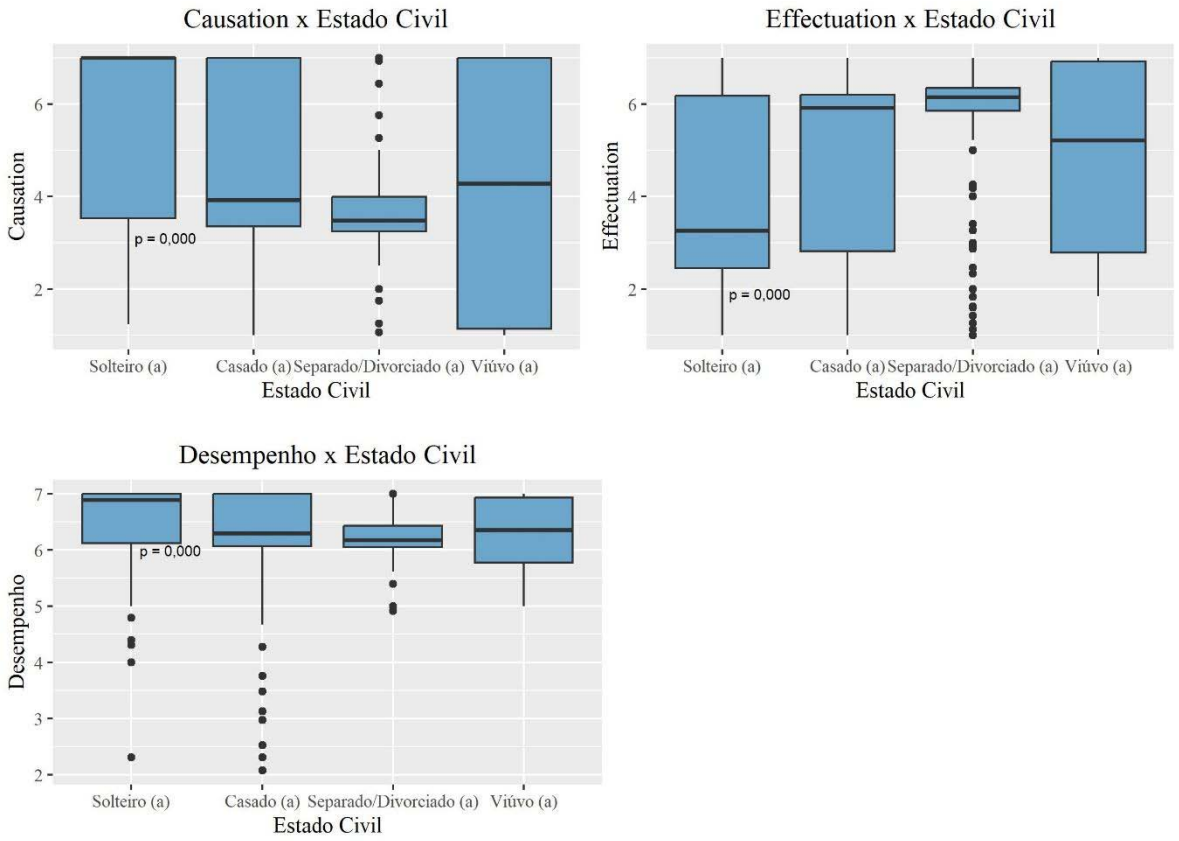


Figure 7: Comparison between indicators and marital status

Table 15 presents the comparison between indicators and employment relationships. It shows no significant difference (p-value > 0.050) for the three indicators.

Table 15: Comparison between indicators and employment relationships

Indicators	Employment relationship	N	Mean	SD	1st Q	2nd Q	3rd Q	P-value[1]	Multiple comparisons[2]	
									Self-employed	Entrepreneur
Causation	Self-employed	1	5.02	-	5.02	5.02	5.02		-	-
	Entrepreneur	709	4.93	1.87	3.35	3.90	7.00	0.148	1.000	-
	Full-time work	8	4.10	1.90	2.33	3.85	5.94		1.000	0.156
Effectuation	Self-employed	1	7.00	-	7.00	7.00	7.00		-	-
	Entrepreneur	709	4.62	1.93	2.94	6.08	6.25	0.122	0.277	-
	Full-time work	8	4.09	1.72	2.41	4.24	5.55		0.347	0.347
Performance	Self-employed	1	7.00	-	7.00	7.00	7.00		-	-
	Entrepreneur	709	6.42	0.59	6.06	6.29	7.00	0.053	0.347	-
	Full-time work	8	4.73	2.04	2.72	5.03	6.59		0.347	0.094

[1]Kruskal-Wallis test; [2]Mann-Whitney test.

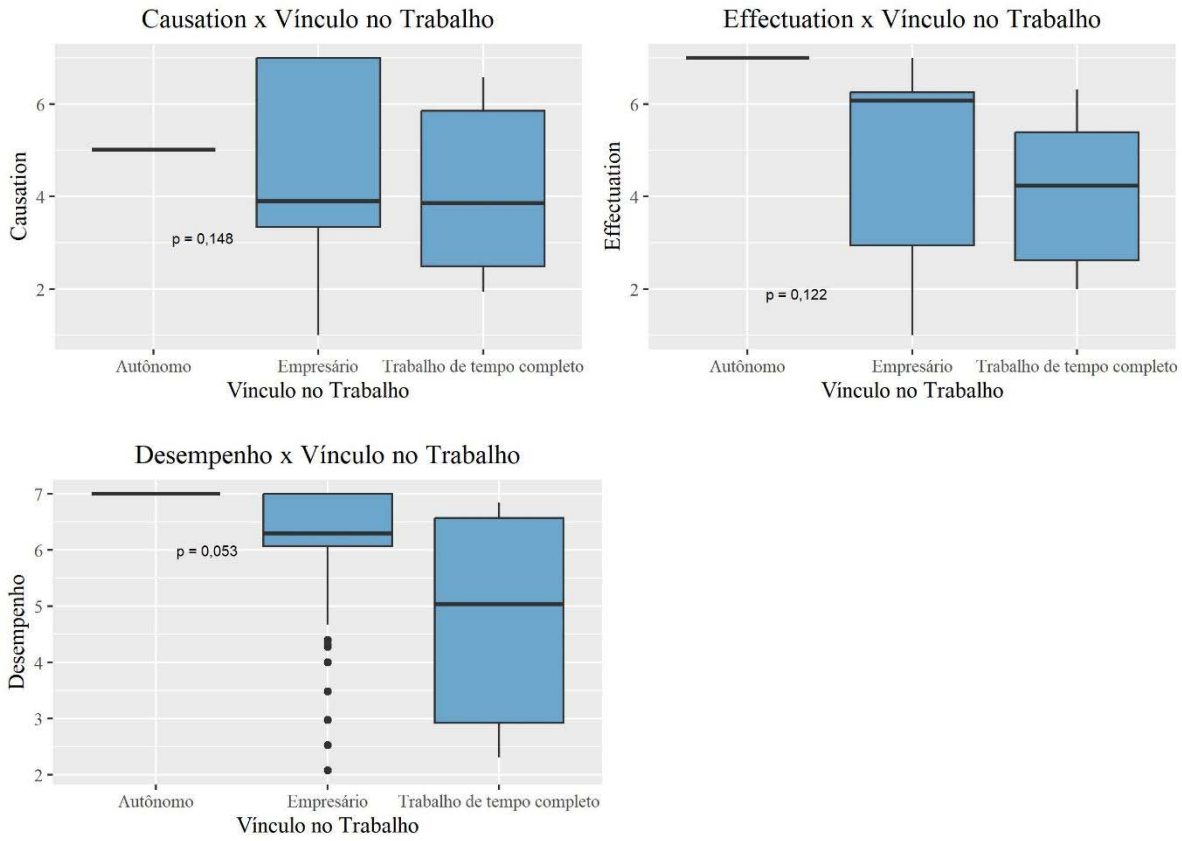


Figure 8: Comparison between indicators and employment relationships

Table 16 presents the comparison between indicators and participation in the company. It is possible to observe a significant difference (p-value < 0.050) in the three indicators for participation in the company. When respondents were partners, the values for causation and performance were higher, while the values for effectuation were lower.

Table 16: Comparison between indicators and participation in the company

Indicators	Participation in the company	N	Mean	SD	1st Q	2nd Q	3rd Q	P-value[1]
Causation	Partner	307	5.44	1.78	3.50	7.00	7.00	<0.001
	Sole owner	411	4.54	1.83	3.30	3.61	7.00	
Effectuation	Partner	307	4.13	1.93	2.47	3.43	6.14	<0.001
	Sole owner	411	4.98	1.85	3.04	6.14	6.32	
Performance	Partner	307	6.53	0.62	6.13	6.70	7.00	<0.001
	Sole owner	411	6.31	0.65	6.04	6.20	7.00	

[1]*Mann-Whitney test.*

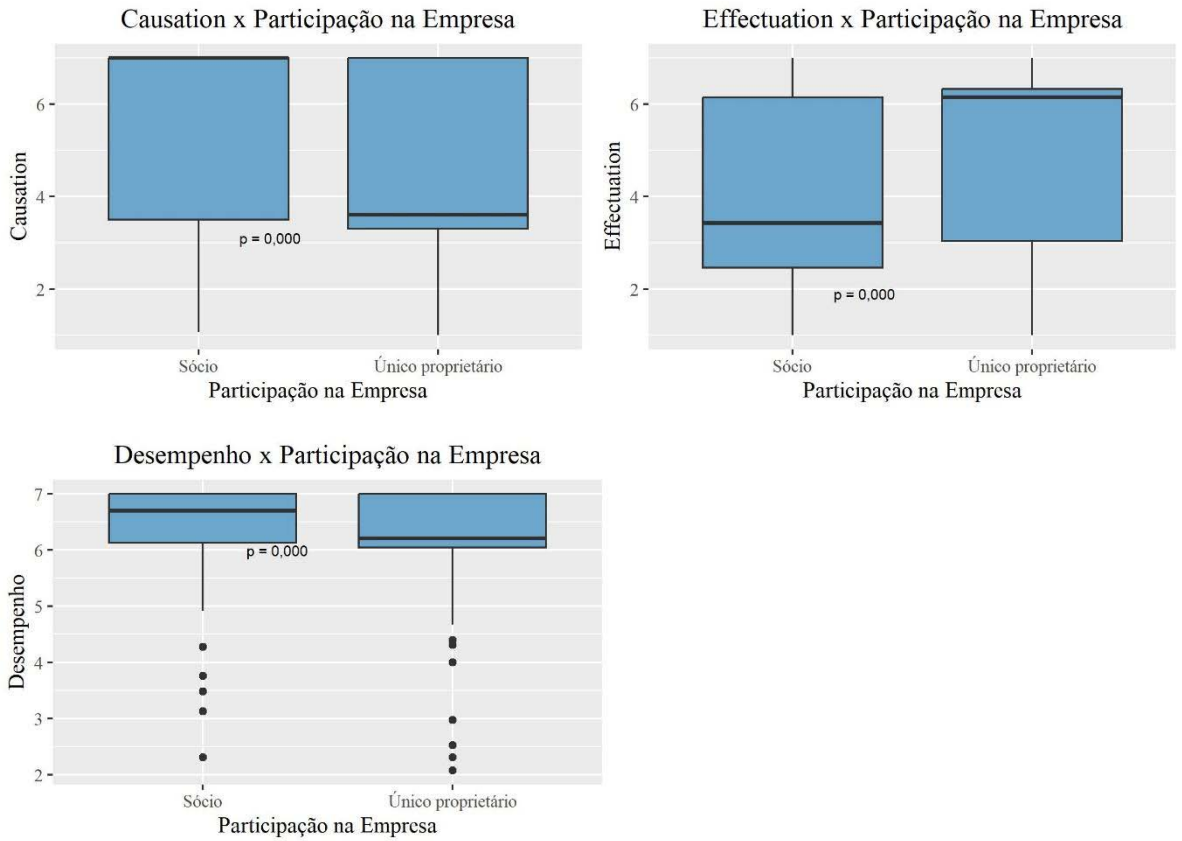


Figure 9: Comparison between indicators and participation in the company

Table 17 presents the comparison between indicators and regions of Brazil. It is possible to observe a significant difference (p-value < 0.050) in the causation indicator between the regions. When observing the multiple comparisons, there was a difference in the North region compared to the Northeast region, presenting lower values, and to the Southeast region, which also presented lower values in the causation indicator.

Table 17: Comparison between indicators and Brazilian regions

Indicators	Region	N	Mean	SD	1stQ	2ndQ	3rdQ	P-value[1]	Multiple comparisons[2]			
									Central West	North east	North	South east
Causation	Central West	54	5.13	1.94	3.37	5.61	7.00	**0.001**	-	-	-	-
	Northeast	203	5.01	1.84	3.38	3.97	7.00		1.000	-	-	-
	North	212	4.54	1.83	3.25	3.52	7.00		0.276	**0.011**	-	-
	Southeast	161	5.11	1.90	3.38	4.16	7.00		1.000	1.000	**0.011**	-
	South	88	5.16	1.83	3.42	4.31	7.00		1.000	1.000	**0.016**	1.000
Effectuation	Central West	54	4.21	2.11	2.12	4.13	6.21	0.072	-	-	-	-
	Northeast	203	4.63	1.91	2.99	6.02	6.28		1.000	-	-	-
	North	212	4.90	1.84	3.08	6.14	6.27		0.580	1.000	-	-
	Southeast	161	4.34	1.99	2.72	4.21	6.20		1.000	1.000	0.101	-
	South	88	4.66	1.88	3.00	6.06	6.34		1.000	1.000	1.000	0.911
Performance	Central West	54	6.49	0.58	6.12	6.70	7.00	0.258	-	-	-	-
	Northeast	203	6.48	0.51	6.10	6.34	7.00		1.000	-	-	-
	North	212	6.30	0.77	6.06	6.21	7.00		0.782	0.498	-	-
	Southeast	161	6.40	0.65	6.04	6.39	7.00		1.000	1.000	1.000	-
	South	88	6.44	0.61	6.06	6.40	7.00		1.000	1.000	1.000	1.000

[1]Kruskal-Wallis test; [2]Mann-Whitney test.

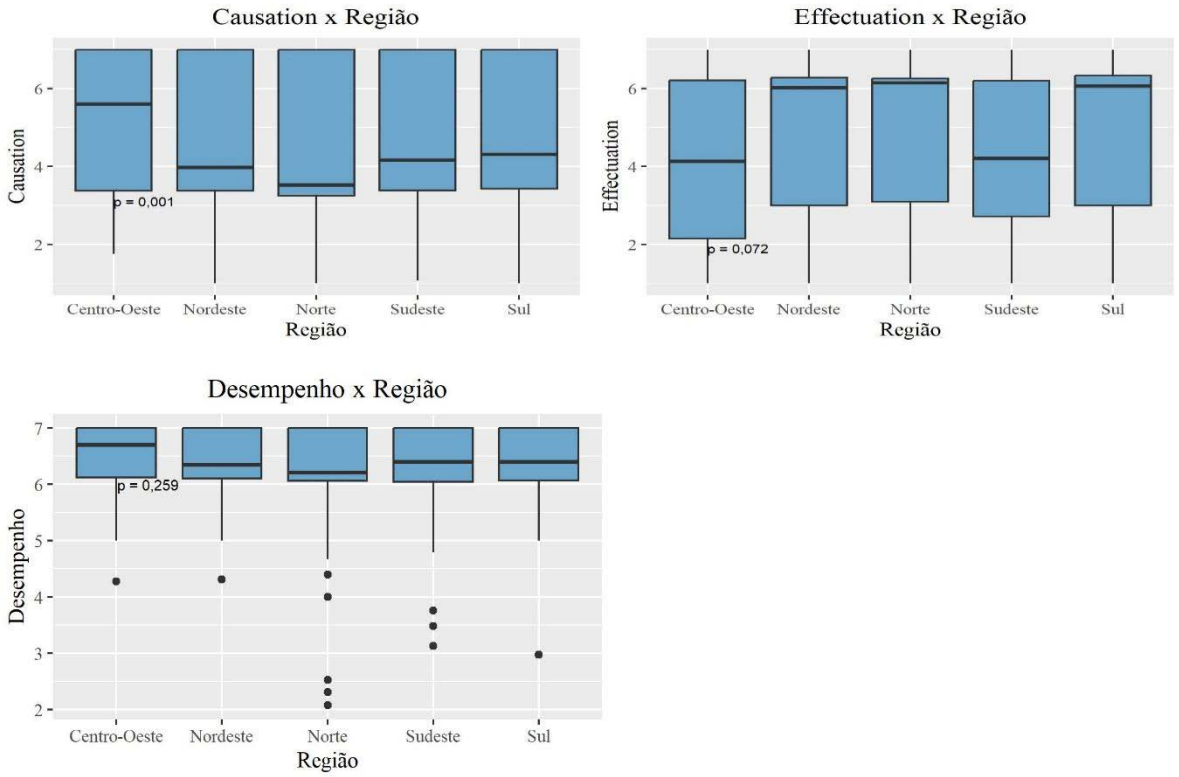


Figure 10: Comparison between indicators and Brazilian regions

h) Academic contributions

This study contributes to the literature in several ways. First, the research's originality stands out in advancing the theoretical concepts of causation and effectuation in the context of the accountant entrepreneur's decision-making process as they embark on new ventures, choosing between starting an accounting franchise versus an independent firm. Furthermore, it presents new connections with previously established concepts and highlights a counterpoint to studies that followed the work by Saravasthy (2001). These studies propose that both processes, causation and effectuation, are not mutually exclusive. They can occur alternatively or simultaneously, with variations influenced by the context or the choices made by entrepreneurs themselves (Harms & Holger, 2012). This occurs because the results obtained in this study show that the entrepreneur's choice between an accounting franchise or an independent accounting firm when it comes to an endeavor with superior performance, will be for the franchise, which has a significant relationship with the causation decision-making approach.

Following Brettel et al. (2012), the causation and effectuation theories were used to advance this discussion, confronting some studies using these concepts in a dichotomous manner. The findings shed light on this fact, revealing the superior performance of accounting franchises.

The literature review found a theoretical gap, observing that, despite the numerous studies on entrepreneurial decision-making processes considering the causation and effectuation theories, there were no studies discussing these theories and the start of an accounting franchise or an independent accounting firm, while examining the performance of these businesses.

Second, the study analyzed the decision-making process of entrepreneurs when starting an accounting franchise versus an independent firm, all within the context of causation and effectuation theories, meeting its objective. It outlined a comparative study between these accounting ventures, linking theories with business performance. In this regard, the difference in performance between franchises and conventional companies lies in the franchisor's market orientation, which indicates that the franchisees' operating strategies are based on differentiation or cost, which directly intervenes in financial and non-financial performance (Lee et al., 2015). Franchise performance is a reflection of market orientation (William, Gillis, & Xiaoli, 2020).

Third, the study enriches research on the decision-making process of starting businesses from the perspective of the causation and effectuation approaches, presenting unique results regarding how to start an accounting franchise or an independent firm. It stands out as a counterpoint to studies that followed the

work by Saravasthy (2001) and advocated a conception that both processes, causation and effectuation, are not mutually exclusive and can occur alternatively or simultaneously, with variations conditioned by the context or the choices of the entrepreneurs themselves (Harms & Holger, 2012). The findings showed that the entrepreneur's choice between an accounting franchise or an independent accounting firm, when it comes to an endeavor with superior performance, will be the franchise, a type of venture with a significant relationship with the causation decision-making approach. This was an unexpected result in understanding the decision-making process of starting a franchise versus an independent company in the light of causation and effectuation.

Fourth, the study contributes by establishing effectuation as an alternative decision-making logic in moments of uncertainty, as Perry et al. (2012) pointed out. The effectuation approach is based on this emerging line of research and has an important relationship with the decision to start an independent firm, thus complementing previous research. The effectuation theory can be understood as a dynamic process that recognizes entrepreneurship as the use of available resources to start a new venture in an uncertain environment (Scaziotta et al., 2019).

Fifth, the results indicate strong correlations between the causation and effectuation perspectives, with starting an accounting franchise and an independent firm, respectively, connecting the type of venture with the approaches adopted in decision-making.

Sixth, the originality of the research lies in reconciling the causation and effectuation theories with the accountant entrepreneur, understanding how this actor behaves in the decision-making process of starting an accounting franchise versus an independent firm, and examining the performance presented by these two types of venture. As a differential, the research analyzed the results through a quantitative approach, which allowed us to obtain robust results.

The seventh contribution refers to the need to test, develop or adapt methodologies that allow the analysis of decision-making processes in enterprises, identifying obstacles and advantages throughout the process. It also generates results that may be used in other academic projects.

Finally, the study meets the dimensions established by Appelholff et al. (2015) and Neely, Gregory, and Plattys (1995), which made it possible to frame, through the adequacy of the questionnaire, the specific questions of causation and effectuation decision-making process, as well as the issues of measuring business performance.

i) Managerial implications

The study's results offer critical and practical insights for entrepreneurs who participated in the research and those contemplating the choice between starting a franchise or establishing an independent firm. By adopting the causation and effectuation approaches, entrepreneurs can evaluate their decision-making process and identify factors that influence the outcomes derived from their choices when embarking on a new venture.

The accountant-entrepreneur can leverage this research to consolidate information that supports the decision-making process when considering starting an accounting franchise or an independent firm. Furthermore, this study addresses a literature gap by explicitly focusing on the decision-making process related to starting an accounting franchise versus establishing an independent accounting firm, considering the perspectives of causation and effectuation theories. Additionally, it explores the relationship between the chosen approach and the positive or negative outcomes of the business. The reflective insights in this article provide decision-makers with reliable and relevant information. According to Matalamaki (2017), there remains a lack of in-depth research, and it remains unclear how both causation and effectuation logics manifest in the development of different types of companies despite the growing interest in effectuation theory in recent years.

This research is justified by the need to understand the relationship between the types of ventures (accounting franchises and independent accounting firms), taking into account the causation and effectuation theoretical approaches. The lack of in-depth studies on this topic highlights the relevance of this work. Understanding how accounting professionals face and respond to the challenges of economic volatility in their business practices will contribute not only to academia but also to the improvement of these practices and the work of these professionals.

The specific objectives outlined corroborate the importance of this research. Furthermore, the objective of analyzing the decision-making process of starting a franchise versus an independent firm in the light of the causation and effectuation theories is based on the behavior and orientation of the accountant entrepreneur when choosing the type of venture they want to start, thus presenting an applicable and pragmatic approach.

Finally, given the contemporary nature of the topic investigated, this study contributes more than just theoretically. It also presents empirical evidence that is helpful to practitioners, scholars, and entrepreneurs by examining the relationship between the causation decision-making process and the choice of starting an accounting franchise and between the effectuation decision-making process and the choice of starting an independent accounting firm. The results indicate a

positive and significant association between starting a franchise, a superior performance of this type of venture, and the adoption of a causation decision-making approach.

j) Limitations and avenues for new research

Although the results obtained are exclusive to the companies analyzed, this study contributes by offering insights into research on other forms of entrepreneurship, which may adapt the theoretical approaches applied here.

The results should be viewed with caution, as the notion of performance was based on the potentially biased perception of the accountant entrepreneurs. However, the inability to generalize the results does not hinder the research's capacity to assist accountant entrepreneurs in making informed decisions about starting a franchise or an independent accounting firm.

The findings and some of the limitations of this study represent opportunities for further research. Future studies may analyze the causation and effectuation decision-making processes related to starting a franchise or an independent firm through a qualitative approach, deepening the content explored in this study and its conclusions. Also, future studies can examine theoretical aspects not addressed in this research or explore other market segments while testing the model proposed here.

This study may be replicated or serve as a starting point for other investigations. It is worthwhile to analyze points that were not extensively developed in this research, such as applying the study to the factors or dimensions highlighted in the causation and effectuation theories through a quantitative approach, thus corroborating the findings of Chandler et al. (2011), Brettel et al. (2012), and Appelhoff et al. (2015). Likewise, it is suggested that the theoretical model developed by Read and Sarasvathy (2005) be adapted for use in management processes where there is a need to make decisions that can adopt the causation and effectuation theories. Future research could explore the relationship between these determinants and decision-making processes rooted in causation or effectuation.

In addition, future research may explore other business sectors. Longitudinal studies can also help minimize possible biases, as this type of research could be designed to follow entrepreneurs for a long time until they decide to create new ventures, thus alleviating retrospective bias. Such studies may improve the decision-making process of starting a franchise or an independent firm.

This study can subsidize the application of the same research format to other types of businesses, allowing for comparison. Finally, it is important to reinforce that these contributions and limitations refer to the results found in this particular study, being restricted to accounting enterprises.

V. Conclusion

This research aimed to analyze the decision-making process of starting an accounting franchise versus an independent accounting firm in light of the causation and effectuation theories described by Sarasvathy (2001). The model used combines insights from the entrepreneurs' decision-making process, considering the causation and effectuation logics and examining the performance of the created enterprise. Therefore, it can also be regarded as a comparative analysis between starting a franchise or an independent company.

Based on a comparative study of the results achieved in light of the causation and effectuation theories, the following research question was addressed: How does the decision-making process differ when starting a new accounting franchise versus an independent firm, considering the perspectives of causation and effectuation? And what is the relationship between the chosen approach and the new company's performance?

The study raised a counterpoint to studies that followed the work by Sarasvathy (2001) and advocated a conception that both processes, causation and effectuation, are not mutually exclusive and can occur alternatively or simultaneously, with variations conditioned by the context or choices of the entrepreneurs themselves (Harms & Holger, 2012). This occurs because the results obtained in this study showed that the entrepreneur's choice between an accounting franchise or an independent accounting firm, when it comes to an endeavor with superior performance, will be for the franchise, which is a type of venture that has a significant relationship with the causation decision-making approach.

Thus, based on the available literature on the subject, five research hypotheses were identified to be empirically tested through the development and application of structured questionnaires, answered by 718 accounting entrepreneurs, 406 of whom were managers of independent accounting firms and 312 were managers of accounting franchises located in all five regions of Brazil. The data were treated with descriptive statistics, factor analysis, and structural equation modeling.

The results confirmed the five hypotheses. Regarding H1, the causation decision-making approach is likely to result in starting an accounting franchise, suggesting that entrepreneurs who choose this type of venture are more comfortable with the causation approach. The confirmation of H2 demonstrated the association between the effectuation decision-making approach and the entrepreneur's decision to start an independent accounting firm. When analyzed together, the findings described in the tests of hypotheses H3 and H4 allow the achievement of the third specific objective,

i.e., evaluate the mediating effect of using causation or effectuation approaches in decision-making. Specifically, explore how these approaches impact the relationship between the type of venture initiated and its subsequent performance.

Finally, the results showed that H5 indicates a difference in performance between the two types of venture studied, with accounting franchises demonstrating higher performance when compared to independent accounting firms, i.e., respondents from accounting franchises attributed higher scores to performance than respondents from independent accounting firms. This finding presents a unique characteristic since, of the 718 responding entrepreneurs, only 312 were managers of accounting franchises and the majority, 406, were managers from independent accounting firms.

The analysis of H5 allowed us to meet the study's general objective of examining the decision-making process of entrepreneurs when starting an accounting franchise versus an independent firm, all within the context of causation and effectuation theories. The confirmation of H5 also led us to achieve the study's third and fourth specific objectives by comparing the performance of accounting franchises and independent accounting firms and associating these types of ventures with causation (franchises) and effectuation (independent firms).

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