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of Economics
& Management
Universidade de Lisboa

MESTRADO
GESTÃO E ESTRATÉGIA INDUSTRIAL

TRABALHO FINAL DE MESTRADO
DISSERTAÇÃO

**THE IMPACT OF INTERNATIONAL STRATEGY ADAPTATION ON
FIRMS' PERFORMANCE DUE TO THE COVID-19 PANDEMIC
CRISIS**

BEATRIZ MARTINS DE BARROS

OUTUBRO - 2021

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ORIENTAÇÃO:

PROFESSOR DOUTOR NUNO FERNANDES CRESPO

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Abstract

Internationalization is a research field studied since the XX Century (Welch & Luostarinen, 1988). It has been adopted by many firms who expand their activities overseas, having into consideration the existing level of globalization (Acosta et al., 2018).

Under this field, the international activity of firms can be studied in numerous ways. In this study the focus is on the relationships established between the strategies of Exploration and Exploitation and International Business Model Adaptation and its own relationship with International Performance, Crisis Survival and Crisis Impact on Performance since this study was developed during the COVID-19 pandemic crisis.

This study has a base research question: In which way did the COVID-19 pandemic crisis impacted firms' international activity and international performance?

This research question is translated into three research objectives: i) To verify the way in which firms adapt their strategy and business model; ii) Ascertain the differences in the impact of exploration and exploitation in the Business Model Adaptation; iii) To investigate the way in which the adaptation of the business model affects firms' international performance.

The results from this study present conclusions in line with the existing literature. There is a positive relationship between both Exploration and Exploitation and International Business Model Adaptation. The International Business Model Adaptation impacts International Performance positively, as suggested in the literature. Additionally, considering the pandemic crisis, the relationships established between International Business Model Adaptation and both Crisis Survival and Crisis Impact on performance are also observed, for the first time, to the best of our knowledge. All the considered relationships demonstrate a positive sign, in concordance with the arguments of the previous literature.

Since the COVID-19 crisis is still occurring this study represents a contribution to the literature due to the novelty of this subject.

Keywords: Internationalization; Strategy; Exploration; Exploitation; Business Model; Adaptation; Crisis; Performance; Survival; COVID-19

Resumo

A Internacionalização é considerada uma área de investigação desde o século XX (Welch & Luostarinen, 1988). Tem sido adotada pelas empresas que expandem a sua atividade além-fronteiras, tendo em conta o nível de globalização existente (Acosta et al., 2018).

Nesta área, a atividade internacional das empresas pode ser estudada de diversas formas. Neste estudo, o foco diz respeito às relações estabelecidas entre as estratégias *Exploration* e *Exploitation* e a adaptação do Modelo de Negócio Internacional e a relação estabelecida entre esta última e o Desempenho Internacional, Sobrevivência e Impacto da Crise no Desempenho, visto que este estudo considera a crise pandémica COVID-19.

Este estudo apresenta uma questão de investigação base: De que forma a crise pandémica COVID-19 impactou a atividade internacional das empresas e o seu desempenho internacional?

Esta questão traduz-se em três objetivos de investigação: i) Verificar a medida em que as empresas adaptam a sua estratégia e Modelo de Negócio; ii) Averiguar quais as diferenças no impacto da *Exploration* e *Exploitation* na adaptação do Modelo de Negócio; iii) Investigar a forma em que a adaptação do Modelo de Negócio afeta o Desempenho Internacional das empresas.

Os resultados deste estudo representam conclusões que vão de encontro à literatura existente. Verifica-se uma relação positiva entre quer *Exploration*, quer *Exploitation* e adaptação do Modelo de Negócio Internacional. Por sua vez, a adaptação do Modelo de Negócio Internacional impacta positivamente o Desempenho Internacional, como sugerido na literatura. Adicionalmente, tendo em conta a crise pandémica, as relações estabelecidas entre adaptação do Modelo de Negócio Internacional e quer a Sobrevivência, quer o Impacto da crise no Desempenho são observadas neste estudo, pela primeira vez, dado o nosso conhecimento à data. Todas as relações mencionadas mostram um sinal positivo, indo de encontro aos argumentos da literatura inicialmente revista.

Visto que a crise de COVID-19 ocorre à data deste estudo, o mesmo representa um contributo para a literatura dada a novidade associada a este tema.

Palavras-chave: Internacionalização, Estratégia, *Exploration*, *Exploitation*, Modelo de Negócio, Adaptação, Crise, Desempenho, Sobrevivência, COVID-19

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List of Abbreviations

AVE – Average Variance Extracted

CFI – Comparative Fit Index

GOF – Goodness-of-Fit

GFI – Goodness-of-Fit Index

NFI – Normed Fit Index

PGFI – Parsimony Goodness-of-Fit Index

RMSEA – Root Mean Square Error of Approximation

RO – Research Objective

RQ – Research Question

SEM – Structural Equation Model

SMEs – Small Medium Enterprises

SPSS - Statistical Package for the Social Sciences

1. Introduction

Internationalization is a field that is subject of research and attention in the literature since last century (Welch & Luostarinen, 1988), however, the interests for this thematic has been growing in the last decades (Ribau et al., 2016). Internationalization has been adopted by many firms who expand their activities having into consideration the existing level of globalization (Acosta et al., 2018). The firms' activity gets more complex when entering international markets. Considering that, the strategies adopted, and the firms' business model are now also considered outside of the domestic market. For that reason, it is important to understand how this components are related between each other and subsequently to performance, as it represents the way in which firms achieve their goals (Knight & Cavusgil, 2004).

On the other hand, the occurrence of crisis has been registered over time and, there is a pandemic crisis occurring at the time of this study. For that reason, the investigation of firms' international activity during this period of crisis becomes relevant to understand the reality surrounding us. Since it is a recent crisis, there are not many studies about it so far. Additionally, this study considers the international component in all the relationships presented, which is not commonly addressed in the literature.

This study is developed based on a main research question (RQ)

RQ 1: In which way did the COVID-19 pandemic crisis impacted firms' international activity and international performance?

This research question can be translated into three research objectives (RO):

RO 1: To verify the way in which firms adapt their strategy and business model.

RO 2: Ascertain the differences in the impact of exploration and exploitation in the Business Model Adaptation.

RO 3: To investigate the way in which the adaptation of the business model affects firms' international performance.

To conduct this exploratory study, a quantitative research was developed supported by a survey strategy conducted through a questionnaire. This questionnaire, sent to 21.256 Portuguese firms with international experience was answered properly by 1.455 firms that constitute the final sample.

The conclusions from this research are in concordance with the existing literature showing that both exploration and exploitation are positively related to international business model adaptation (Ahokangas & Myllykoski, 2014; Anzenbacher & Wagner, 2020; Colovic, 2021; Smith et al., 2010).

The international business model adaptation impacts positively the international performance as observed by Asemokha et al. (2019), Colovic (2021) and Lonial & Carter (2015). Lastly, after the assessment of this relationship, the observation of the relationships established between international business model adaptation and both crisis impact on performance and survival were considered relevant to the better understanding of firms' activity.

As a contribute to the literature, this study is based on a sample that includes firms of different dimensions and not only SMEs as considered in the existent literature.

To the best of our knowledge, this is the first study conducted in Portugal, related to the COVID-19 crisis impact on firms' performance and activity. Additionally, this is the first study, assessing the existing relationship between international business model adaptation and both crisis impact on performance and survival, under an international context. This exploratory approach allows to observe the way in which Portuguese firms' business model adaptations are impacting their survival and influence the way in which the pandemic crisis impacts their performance.

This study is structured in 7 chapters. The first one is the introduction that is followed by Chapter 2 where the Literature Review is presented. Chapter 3 is dedicated to the Conceptual Model and Research Hypotheses. Posteriorly, in Chapter 4, the Research Methodology is presented. In Chapter 5 we have the Data Analysis and Results, followed by Chapter 6 that correspond to the Discussion of the Findings. Lastly, in Chapter 7, the conclusions are presented followed by the implication, both theoretical and managerial and, in the end, the limitations and further research.

2. Literature Review

2.1 Internationalization

Internationalization became an object of attention from organizations and the literature since the 1960s (Welch & Luostarinen, 1988). The study of this theme has been growing in the academic field during the last decades (Ribau et al., 2016) and the concept of

internationalization has been evolved despite the definitions presented by authors of the XX century still be considered actual (Buckley, 2016; Ribau et al., 2016).

Internationalization is studied in different fields, considering different perspectives which result in a variety of definitions. For that matter, it is considered an ambiguous term in the literature (Głodowska et al., 2019; Ribau et al., 2016).

Welch & Luostarinen (1988) define internationalization as the process of growing involvement in international operations. Gorynia et al. (2019) point out that internationalization shouldn't be considered only from the perspective of entrance into new foreign markets but as part of a strategy to develop and manage operations on an international level. Buckley (2016) takes into account the investigation conducted about internationalization process management. That way, the author defines the concept as the result of a set of decisions dependent on the context and previous decisions made, considering a group of host countries and entry modes selected over time and space.

Acosta et al. (2018) consider the action of internationalizing firms' activity as an innovation itself, once it requires the exploration of new opportunities in different environments.

Landau et al. (2014) raise awareness to the fact that the business model used by firms in the domestic market which allows them to accomplish competitive advantages, may fail in international markets due to the characteristics and local competitors. For that reason, while internationalizing their activities, firms have to "adapt their business models to better fit the specific context of these international markets" (Landau et al., 2014, p. 480).

In the study field of internationalization, a theme frequently addressed is the one concerning internationalization strategies (Głodowska et al., 2019). Internationalization is commonly considered as a component of the firms' corporate strategy, under a long-term orientation (Gorynia et al., 2019). In the following section, the theme of strategy will be addressed to better understand it, so it can be studied in the international context.

2.2 Strategy

Similarly, the concept of strategy doesn't have a unique definition universally accepted (Mintzberg & Quinn, 1991). There are a considerable number of dimensions to take into consideration when studying the thematic of strategy (Głodowska et al., 2019), and the

definition changes depending on the author due to the dimensions considered (Mintzberg & Quinn, 1991).

Smith et al. (2010) define strategy as a group of products (or services) plus the resources they have available to compete on the market. Strategy can also be defined as an analytical process that allows to establish and plan goals and actions in the long term (Mintzberg & Waters, 1985). According to Quinn (1991, p. 4), “a strategy is the pattern or plan that integrates an organization’s major goals, policies and action sequences into a cohesive whole”.

Mintzberg & Quinn (1991) raise awareness to the fact that to be effective, a strategy process always depends on the little details, in opposition to the pre-conceived idea that strategy is based on big actions. According to the authors that is one of the main reasons why strategy paths fail. To be successful, a strategy requires consistency, focus, and understanding of the competitive conditions (Buckley & Ghauri, 2015). Competitive advantages defined as resources, competencies, and knowledge applied in a certain way in the surrounding environment are essential to the success of a strategy (Schmid, 2018). According to Knight & Cavusgil (2004), the foundational resources are especially important for firms to achieve a stable base for developing strategy. Martí (2017) identifies the reason why firms implement strategy: to adapt to the environment where inserted and to plan how to accomplish competitive advantage and achieve performance goals (survival and growth) in the long term.

There are several ways to categorize strategies and different dimensions of strategy studied in the literature. Based on the military strategies, Mintzberg & Quinn (1991) identify the essential elements for a strategy. Those are the main goals that a firm wants to achieve, the most important policies to guide the process, and the main actions to accomplish the goals established.

When there is a significant change in the environment where firms are located, they need to quickly adjust to the new reality (Osiyevskyy et al., 2020). The authors identify a crisis as a moment of abrupt changes. Therefore, it is necessary to adapt the strategies used (Martí, 2017), since there is an environmental change.

As a strategic way to respond to a crisis, there are a variety of options identified. Wenzel et al. (2020) present four strategies to do so: i) retrenchment, focused on reduction; ii) persevering, focused on maintaining the business activities; iii) innovating, focused on

renewing the strategy and, lastly, iv) exit which means to terminate a business activity. Alternatively, firms can also choose between two strategies: exploration and exploitation (Gupta et al., 2006; March, 1991; Osiyevskyy et al., 2020; Smith et al., 2010), considered two generic strategies for firms' adjustment to the environment (Osiyevskyy et al., 2020).

Both are essential for the organization (Gupta et al., 2006; March, 1991) but compete for the available scarce resources (March, 1991; Smith et al., 2010).

March (1991, p. 71) in a seminal study, differentiates exploration and exploitation by clarifying what each one addresses: "the exploration of new possibilities and the exploitation of old certainties". According to the author exploration is related to terms like "search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation". In contrast, exploitation is related to terms like "refinement, choice, production, efficiency, selection, implementation and execution". Exploration can be defined as the development of new knowledge (Levinthal & March, 1993), allowing the find of new competencies and opportunities by the firm (Uotila, 2017). There is a consensus around the definition of this concept (Gupta et al., 2006). The authors refer the acceptance of exploration as the search and acquisition of new knowledge. Alternatively, the concept of exploitation can be defined as the usage of current competencies (Levinthal & March, 1993), knowledge and opportunities, and respective refinement (Uotila, 2017). However, Gupta et al. (2006) identify discordance in the literature regarding the concept of exploitation. The authors present the different approaches: the consideration of past knowledge exclusively, and the acquisition of new knowledge different from the one associated with exploration. Taking into consideration the second approach, Baum et al. (2000, p. 768) define exploitation as the "learning gained via local search, experiential refinement, and selection of existing routines".

As stated previously, both strategies compete for limited resources. Having that in mind, organizations need to achieve a balance between them (He & Wong, 2004). That balance, defined as ambidexterity, is crucial for firms to survive in changing environments (Anzenbacher & Wagner, 2020). It's not viable for an organization to be exclusively dedicated to one approach. By dedicating only to exploration, the organization will never gain results from the acquired knowledge, conversely, by dedicating only to exploitation it will end up obsolete (Levinthal & March, 1993). Since the strategies represent different approaches, they will have different effects and results (He & Wong, 2004). Exploitation

presents, generally, better results in the short term, while exploration does it in the long term (Levinthal & March, 1993; March, 1991; Uotila, 2017). Additionally, the returns from exploitation are more certain and closer in time than the ones coming from exploration (He & Wong, 2004). Due to the effects mentioned, exploration can be considered riskier than exploitation.

2.3 Business Model and Business Model Adaptation

The concept of the business model has gained attention in the literature due to the impact it has on the firms' competitive advantages (Ahokangas & Myllykoski, 2014). It can be defined as a design based on a given set of choices used by organizations to create, capture, and deliver value to the stakeholders (Casadesus-Masanell & Ricart, 2010; Osterwalder & Pigneur, 2010; Smith et al., 2010; Teece, 2010) like customers, for example (Teece, 2010), or as "a system of interconnected and interdependent activities that determines the way the company "does business" with its customers, partners and vendors" (Amit & Zott, 2012). On the other hand, a business model can also be considered as an internal factor (Anzenbacher & Wagner, 2020) and defined as a "practical model of technology that is ready for copying, but also open for variation and innovation" (Baden-Fuller & Morgan, 2010, p. 157). This definition is based on the idea that a specific business model is like a recipe, which results from a practical perspective and considers the importance of tacit knowledge transmission.

The main goal of a business model is to "define how the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit." (Teece, 2010, p. 172) and the context in which the business occurs is essential to fully understand the concept of the business model (Ahokangas & Myllykoski, 2014).

The business model reflects the firms' strategy (Casadesus-Masanell & Ricart, 2010) and, according to the authors, it's important to distinguish the concept of business model from the concept of strategy, despite the existing relationship between both. Having that in mind, Casadesus-Masanell & Ricart (2010, p. 196) define strategy as "the choice of the business model through which the firm will compete in the marketplace". A business strategy, according to Teece (2010), is essential to protect competitive advantages that may result from the implementation of the business model, from competitors and new entrants. The business strategy includes actions like segmentation of the market and elaboration of a value proposition for each one of the segments (Teece, 2010). When

strategizing, firms must consider the exploration and the exploitation of opportunities and advantages, which occur in parallel through the business model creation and adaptation (posteriorly approached) (Ahokangas & Myllykoski, 2014).

A new business model can be seen as a form of innovation (Teece, 2010) and it doesn't have to take into consideration the exploitation of previous advantages (Ahokangas & Myllykoski, 2014), which can be considered an advantage when compared to the business model adaptation.

The notion of business model adaptation (Landau et al., 2014) is also identified in the literature as “business model transformation” (Ahokangas & Myllykoski, 2014) and “business model innovation” (Amit & Zott, 2012; Asemokha et al., 2019; Colovic, 2021; Kringelum & Gjerding, 2018; Landau et al., 2014; Sosna et al., 2010; Teece, 2010). Heij et al. (2014) classify business model adaptation through two types: business model replication and business model renewal, being the first one associated with the implementation of a successful business model already created and the second with the creation of a model different from the already existent ones.

The business model is created considering the business context where it is present. Since that context is not static, there is a dynamic relationship between both. Considering that relationship and to maintain competitiveness it's necessary to continually adjust the business model to the context (Ahokangas & Myllykoski, 2014). That ability is essential to succeed in the long term (Sosna et al., 2010). Kringelum & Gjerding (2018, p. 47) define business model adaptation based on the concept of value network which represents a network constituted by one or more enterprises and respective stakeholders who create economic value through their interactions. Considering that define business model adaptation could be defined as the “process of renewal that can occur through contexts of exploitation and exploration in a value network” (Kringelum & Gjerding, (2018, p. 47).

If the business model is sufficiently differentiated, its adaptation can be a way to reach competitive advantages, because imitation by other companies is hard to achieve (Teece, 2010). Intangible assets are especially difficult to imitate which may origin a strong competitive advantage (Lonial & Carter, 2015). Additionally, according to Amit & Zott (2012), competitors find it harder to imitate a whole business model rather than a product or process. When considering knowledge, uniqueness, and inimitability is also a way to

potentially achieve higher levels of performance at an international level (Knight & Cavusgil, 2004).

Regarding the business model, the adaptation occurs at a different time and with a different experience than the creation, while maintaining the concept of the business model (Ahokangas & Myllykoski, 2014). Its adaptation has been under more attention in the literature for the past few years and is considered the key driver for many firms' success (Sosna et al., 2010). According to Asemokha et al. (2019), there are two main motives to adapt the business model. First, to satisfy current customers' existing needs still unsatisfied and, secondly, to attract new customers with a different value proposition associated. An adequate business model adapted to the market segmentation, with unique characteristics contributes to the firms' competitive advantage (Teece, 2010).

The firms must adapt the business model to the competitive environment where they are present to achieve sustainable profitability, independently of the resources they own, since those are not enough by themselves (Teece, 2010). This ability to adapt the business model is also important for performance achievements (Asemokha et al., 2019).

According to Ahokangas & Myllykoski (2014, p. 14) the business model creation and adaptation practices consist in "comprising visioning, strategizing, performing, and assessing with the goal of reaching a competitive advantage regarding a business opportunity". The original business models are often revised and adapted, being frequently associated with a "trial-and-error" approach to the process, where adjustments and previous knowledge and learning (both individual and organizational) are essential (Sosna et al., 2010; Teece, 2010). Firms that are oriented to learning from their environment are more likely to adapt when facing changes than their competitors (Lonial & Carter, 2015). According to these authors, this capability contributes to the maintenance of existent competitive advantages, being positively related to performance.

When adapting the business model, firms must take into consideration the framework resultant of the changes in the markets, technologies, and laws (Teece, 2010) and continue to follow the changes occurring over time. A bigger focus on the business model adaptation can allow firms to improve their international performance, and inherent competitive advantages (Asemokha et al., 2019). Naidoo (2010) identifies competitive advantages as a way to achieve higher levels of performance based on innovation.

The balance established between exploration and exploitation previously addressed contributes to a better understanding of the business model adaptation (Ahokangas & Myllykoski, 2014). Therefore, during the lifetime of the business model, exploration and exploitation are interconnected being exploitation the result of exploration combined with learning (Ahokangas & Myllykoski, 2014). Sosna et al. (2010) also address the relationship between exploration and exploitation during the business model adaptation process. To do so, the authors identify 2 phases: an exploration phase followed by an exploitation phase. The first one concerns the business model design and testing, and development. The second one is related to improving the business model and sustaining growth through learning across the organization. Posteriorly, exploration takes place again, to respond to different triggers that emerge over time. Landau et al. (2014) also verify the existence of this relationship in the process of business model adaptation into the international context.

Colovic (2021) observes the business model adaptation considering the strategies of exploration and exploitation as many authors previously mentioned. However, the author integrates the business model adaptation at an international level. First, the author suggests the use of both exploration and exploitation by firms, independently of the order by which it occurs, leading the first to the second. Posteriorly, the author observes that most firms, at the international level, start with an exploitation approach on the business model and then, after gaining some international experience, adapt the business model through exploration.

2.4. Performance and survival

Asemokha et al. (2019) identify different categories to evaluate international performance. It can be considered according to a time horizon and can also be defined by using an objective or subjective basis, such as financial indicator or comparison, respectively. Knight & Cavusgil (2004, p. 129) define international performance as the “extent to which financial and other goals are achieved as a function of business strategies”. Based on Porter’s strategies, Martí (2017) observed a tendency to select financial measures of performance by firms who pursue cost leadership and, in contrast, a tendency to emphasize non-financial measures by firms pursuing a differentiation strategy. However, the authors draw attention to the general increment of importance attributed to financial performance during periods of crisis by firms, inclusive in the case

of differentiation strategy. Regarding performance, Lonial & Carter (2015) identify 3 dimensions to consider: financial performance, market performance, and quality performance.

Once the firms internationalize their activities, they must consider the needs of customers located in different foreign markets and also the competitors operating there (Acosta et al., 2018). Both these stakeholders need to be under the focus of the firms to achieve higher performance levels. Despite the importance of considering the needs of different markets' customers, globalization entails the increment of homogenization of customers' preferences around the world, which allowed firms to develop products suitable for different foreign markets (Knight & Cavusgil, 2004). This trend allows international firms to reduce costs associated with their international activity. Besides the homogenization of the markets, to achieve a level of performance that corresponds to a sustained international presence, firms must adapt their business model at a large scale (Colovic, 2021). The authors also highlight the importance of human capital in the success of international presence.

Naidoo (2010) considers survival as a measure of firms' performance. Sinha & Nobel (2008, p. 945) consider survival as the "ultimate measure of success for any firm", as failure signifies the lowest performance possible. The authors consider failure as the action taken by a firm of leaving a product market. On the other hand, they consider survival as the avoidance of leaving a product market.

As addressed previously in section 2.2, in a period of crisis, firms must adapt their strategy and goals (Martí, 2017). As approached in section 2.3, the business model is related to the strategy implemented by the firm, since the first one reflects the second. (Casadesus-Masanell & Ricart, 2010). It is, therefore, important to determine the impact caused by a crisis on firms' activities and results which translate into performance.

2.5. Crisis impact

Globalization is "the process by which national economies have integrated into a vast inter-connected global economic system" (Sharma et al., 2020, p. 188). Considering the existing level of globalization, many firms expand their activities to an international scale (Acosta et al., 2018). For that matter, the occurrences registered in a certain country affect not only itself but many others, having an impact on a global scale. This phenomenon is visible on different occasions such as the 2008's global financial crisis and the current

COVID-19 pandemic crisis, with origin in a specific location and repercussions worldwide.

Osiyevskyy et al. (2020, p. 228) define economic crisis as “an extreme, unexpected or unpredicted change in the external macroeconomic environment that requires an urgent response from firms and creates challenges and new threats for them”. A crisis is a period where changes occur in the environment and, because of that, firms are not as much aligned as before which can result in decreases in performance (Håkonsson et al., 2012; Trahms et al., 2013). Additionally, the plans previously made may be inexecutable since the resources available are not the same as before, which can lead to a loss of performance because there will be no results from the prior work (Shirokova et al., 2020). To face up to these periods, firms need to adapt their strategies and goals (Martí, 2017). To do so, they must be flexible to adjust to the new environment (Håkonsson et al., 2012). Additionally, firms must consider the importance that leadership can assume in a period of crisis to guarantee the survival of the firms (Trahms et al., 2013).

Sosna et al. (2010) identify a severe crisis as an opportunity to start the process of rethinking the current business model and adapt it. They also consider it an adequate occasion for firms to search for new solutions. Shirokova et al. (2020) observe the importance of searching for new strategies and building new capabilities to overcome an old strategy which probably wouldn't work in the future since the environment is changed. Osiyevskyy et al. (2020) argue that in periods of environmental instability, like a crisis, the most appropriate response may be to focus on the exploitation of existing knowledge rather than the exploration of new opportunities. This argument is based on a proposed negative effect of an environmental change in the relationship between exploration and performance.

Strategic actions by the firm are essential for long-term performance after a period of crisis, taking into consideration the environmental changes that occurred (Trahms et al., 2013). When facing a period of crisis, associated to uncertain conditions, firms who adapt their business model have higher chances to increase their international performance (Asemokha et al., 2019).

In summary, it is necessary to change and adapt after a period of crisis since it is a time of extreme environmental uncertainty and resource scarcity.

3. Conceptual Model and Research Hypotheses

3.1. Development of the model

The study of internationalization-related themes has been growing in the literature (Ribau et al., 2016). For that matter, several questions have been raised regarding the topic. Considering the current COVID-19 pandemic context and the environmental changes that occur, international businesses are being affected. For that reason, it is relevant to investigate the changes made by firms as a response to the existing crisis.

As addressed before, strategy can be seen as a process to establish goals and plan the action in the long term (Mintzberg & Waters, 1985). When a crisis arises, there are environmental changes associated (Osiyevskyy et al., 2020) and firms can implement strategies of exploration and exploitation as a response (Gupta et al., 2006; March, 1991; Osiyevskyy et al., 2020; Smith et al., 2010). The business model also must be adapted as it reflects the business strategy (Casadesus-Masanell & Ricart, 2010).

Considering the crisis context, it is important to observe to which extent, the adaptation of the business model affects the firms. That effects can be measured through performance, as it can be considered a function of business strategy (Knight & Cavusgil, 2004). Additionally, it should be possible to measure it through the crisis impact on firms' performance and through survival which represents the ultimate measure of performance (Naidoo, 2010; Sinha & Noble, 2008);

These relationships are mainly studied in the literature, being mostly applied to a domestic context instead of an international one. Additionally, the universe of Portuguese firms has not been under study yet. For those reasons, it is necessary to determine the relationship of these variables under a period of crisis, focusing on the international activities performed by Portuguese firms. The conceptual model is present below (Figure 1).

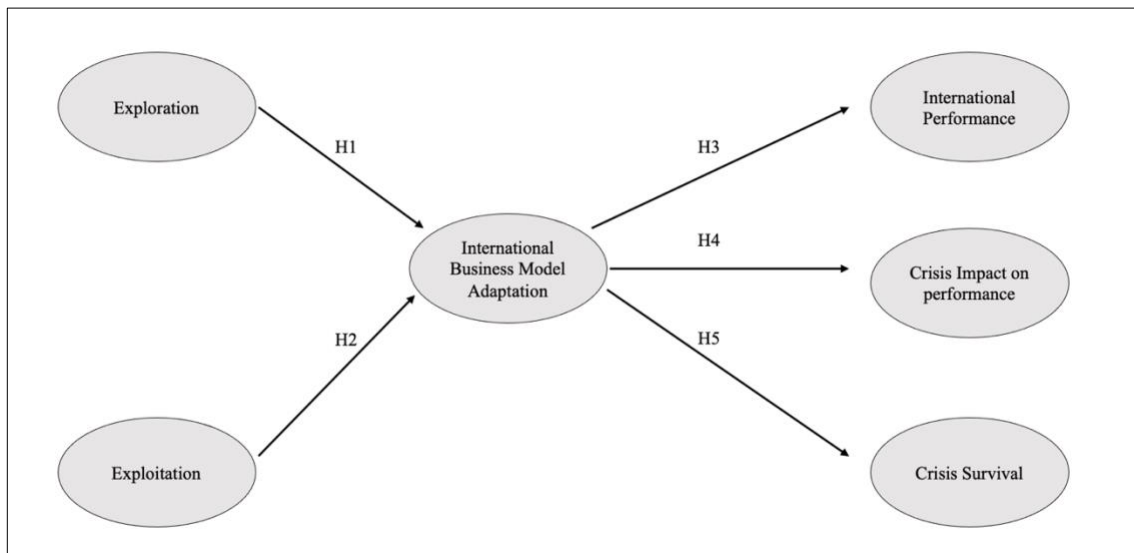


Figure 1: Conceptual Model

3.2. Research Hypothesis

Firms can adapt their business model through exploration and exploitation (Kringelum & Gjerding, 2018). That way it is possible to assume that both exploration and exploitation have a positive relationship with business model adaptation. Smith et al. (2010) observe both exploration and exploitation strategies impacting the business model and its continuous adjustment. Ahokangas & Myllykoski (2014) also establish the influence of exploration and exploitation in the business model adaptation, once it contributes to the evolution of the business model, on both creation and transformation. Anzenbacher & Wagner (2020) study the effect of exploration and exploitation on the business model and conclude that both benefit the business model, being the exploration more beneficial in certain cases and exploitation in others. Sosna et al. (2010) investigate the trial-and-error learning which contemplates both exploration and exploitation, and its positive effect on the business model adaptation.

Colovic (2021) studies the effect of exploration and exploitation on business model adaptation for internationalized firms. The author verifies a positive relationship between exploration and exploitation and the business model adaptation.

The relationship between exploration and exploitation and business model adaptation has been studied by different authors. However, the relationship in an international context is rarely addressed. To the best of our knowledge, the study conducted by Colovic (2021) is the only one approaching it.

Based on the existent literature, and respective investigations, we argue that:

H1: Exploration is positively related to the international business model adaptation.

H2: Exploitation is positively related to the international business model adaptation.

Asemokha et al. (2019) study the relationship between business model adaptation and international performance. The authors verify a positive relationship between both variables using a sample of Small and Medium Sized Enterprises (SMEs). In their study, the authors observe that firms used to quickly adjusting their activities due to environmental changes are more likely to achieve high levels of international performance since they meet the market need specifications rapidly. Lonial & Carter (2015) also identify the capability to quickly adapt to changes as a form to maintain competitive advantages, being positively related to performance. Colovic (2021) also verifies that business model adaptation contributes positively to performance. This author concludes that internationalized firms have to adapt their business model on a large scale in order to respond to the needs of international markets, positively impacting the firm's performance.

In their study concerning distinct types of business model adaptation, Heij et al. (2014) verifies the positive effect of both replication and renewal on firm performance. Whereas the first one results in a constantly refined model harder to imitate, the second allows the firm to “protect or regain its market position and profitability in its existing markets” (Heij et al., 2014, p. 1506).

Based on the existent literature, we argue that:

H3: International business model adaptation is positively related to international performance.

As Asemokha et al. (2019) state, there is a relationship between business model adaptation and international performance. Having that in mind and considering the crisis context previously addressed, we consider it relevant to investigate if the business model adaptation influences the crisis impact on performance positively as it does with performance by itself.

Moreover, considering survival as a measure of performance (Naidoo, 2010; Sinha & Noble, 2008), we propose to investigate the effect of business model adaptation on crisis survival to confirm if the relationship remains positive, despite the difference in the concept compared to performance itself.

To the best of our knowledge, this is the first study investigating the relationship between business model adaptation with crisis impact on firms' performance and survival, considering the international component.

Based on the existent literature, and respective investigations, we argue that:

H4: International business model adaptation is positively related to crisis impact on firms' performance.

H5: International business model adaptation is positively related to firms' crisis survival.

4. Research Methodology

This chapter will explain and describe the options made in the research conducted during this study.

The investigation process regarding this study was based on a philosophy of positivism and a deductive approach to theory development by deducting hypotheses based on the existing literature and test them posteriorly (Saunders et al., 2019).

As for the purpose of the research, according to Saunders et al. (2019), the present study was an exploratory one, once the research's main goal was to study the possibility of relationships between the defined variables. In this case, the focus was on the Portuguese firms' international adaptation due to the COVID-19 pandemic crisis.

Considering the time horizon, this was a cross-sectional study although it considered, besides the pandemic crisis period, the previous period, and following one (considered as a prevision). Nevertheless, the data was only assessed on a specific date, and therefore it could not be classified as a longitudinal study.

Regarding the methodological choice, quantitative research was developed, supported by a survey strategy conducted through a questionnaire.

4.1. Sample

The sample was constituted by Portuguese firms with more than 5 employees and with positive exports percentage on the firm's total sales. The database with the firms matching the criteria was provided by InformaD&B, who maintained the anonymity of the companies. A total of 21.256 company's email addresses constituted the database received.

4.2. Questionnaire Design

The questionnaire was developed to collect information that could help answer the research questions of this study. The previous literature review was considered while designing the questionnaire once it allowed the identification of variables suitable for the research. For this study, the literature review considered was based on the strategies of exploration versus exploitation and business model international adaptation, specifically the existing relationship between both and the impact of the business model adaptation on the firms' crisis survival, international performance, and crisis impact on performance.

According to Deutskens et al. (2004), some of the most important factors to maximize the quality and rate of response are incentives and follow-up mailings. Having that in mind, and considering the nature of the research, a monetary incentive wasn't a possibility. The alternative solution found was to offer the respondents the opportunity to receive a report with the conclusions of this study, as a way of thanking their participation. Additionally, the questionnaire's length was also considered to take the least response time possible and prevent respondents to give up answering the survey.

The questionnaire was structured in five sections. The first section (section A) was designed to characterize the respondents. The second section (section B) was related to the characterization of the firm. The following sections focused on the relationship between the firm's action and the pandemic crisis. In section C, the goal was to assess the characteristics of the firm in the period before the crisis. Section D was related to the period during the crisis. Lastly, section E approached the firm's performance during and after the crisis. The questionnaire was directed at Portuguese firms and for that reason it was written in Portuguese, being the measures and scales translated from the original version in English.

4.2.1. Measures

In this study the variables were measured using a seven-item Likert scale with a neutral central point, to facilitate the response by the participants.

Sections A and B were an exception because the respondents had to answer short open questions and list questions.

The strategies of exploration and exploitation were measured through 12 items (6 related to exploration and 6 related to exploitation) from Osiyevskyy et al. (2020). For the variable exploitation, the item 1 was removed during the optimization process.

The international business model adaptation was measured through 5 items adapted from Asemokha et al. (2019) into a context of international markets and period of crisis. International performance was measured using 6 items, being the first 3 items related to the firm performance based on initial expectations and the last 3 items related to the firm performance based on the competition, as Acosta et al. (2018) suggested in their study based on Knight & Cavausgil (2004).

The crisis impact on firms' performance was measured through a total of 10 items, 4 from Shirokova et al. (2020) and 6 items from Lonial & Carter (2015). During the optimization process, items 8, 9, and 10 were removed.

Lastly, crisis survival was measured through 4 items from Naidoo (2010). During the optimization process, item 4 was removed.

4.2.1.1 Control Variables

The control variables considered in this study were the firm size, firm age, and international experience. The firm size is positively related to the international performance of firms, independently of considering financial or non-financial measures. On the other hand, the firm age affects the international performance negatively (Doğan, 2013; Vu et al., 2019). This last behavior is related to the fact that over time, firms tend to be less dynamic, which can result in more difficulties when facing environmental changes. Lastly, the international experience, measured in years from the difference between the current year (2021) and the year in which the firm started internationalizing their businesses (Sapienza et al., 2005). International experience is positively related to firm's survival and also success (Mudambi & Zahra, 2007).

4.3. Participants and Data Collection Procedures

The designed questionnaire (see Appendix 1) was sent to the firms' email addresses provided via a link included in a message explaining the purpose of the study and asking for the participation of the firms (see Appendix 2). The questionnaire and database were uploaded to LimeSurvey, the platform chosen to manage and share the questionnaire with the firms. The first email was sent on March 24th, followed by four reminders in the

succeeding weeks. The online questionnaire was active until April 27th. From the 21.256 firms contacted, 1.534 responded to the questionnaire and 361 sent an email informing that they were unavailable to respond or didn't think they would fit the sample properly.

After getting all the responses, a screening process was executed. As a result, 79 firms' responses were eliminated due to the submission of the questionnaire with no information about exportation or unengaged responses.

For the data analysis, the number of responses considered was 1.455 firms that correspond to the final sample. The response rate was 6,96% (1.455/20.895).

4.4. Methods for Data Analysis

In a first phase, the data was downloaded to SPSS to aggregate the variables.

The Structural Equation Model (SEM) is a method that allow a group of relationships between independent and dependent variable(s) (Ullman & Bentler, 2012). It is considered a second-generation statistical analysis technique because it allows examining the relationship between different variables, simultaneously (Lowry & Gaskin, 2014). In this study, for Structural Equation Modeling the software used was AMOS.

5. Data Analysis and Results

5.1. Sample Analysis

The following section contains a characterization of the sample, firstly concerning the respondents and posteriorly, the firms. Charts are used to help understand the distribution of responses through the different characteristics.

5.1.1. Characterization of the Respondents

The respondents are mainly men (59%), and the age range is from 20 years old to 83 years old. The biggest percentage of respondents (approximately 38%) is in the interval between 40 and 49 years old (38%), followed by the interval between 50 and 59 years old (29%).

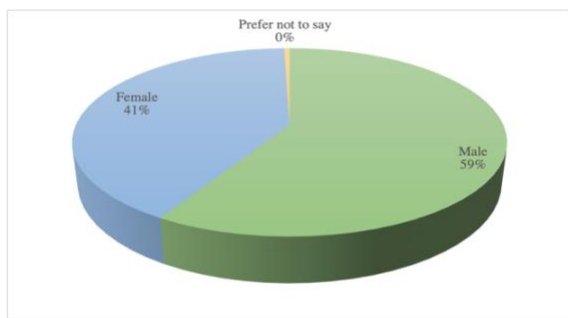


Figure 2: Gender of the respondents

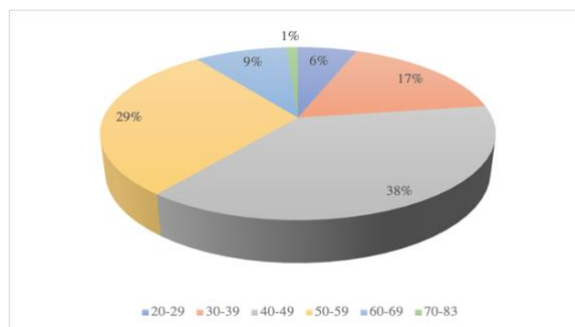


Figure 3: Age of the respondents

In the first section of the questionnaire, respondents also had to indicate their highest educational level completed. About 66% of respondents have a college degree and only 2% have the lowest level, elementary school. Also, 21% completed high school and 5% have professional education.

When asked about how many foreign languages they speak fluently, approximately 33% answered one, 32% answered two and 16% answered three languages. Only 8% of the respondents don't speak fluently any language besides Portuguese. The remaining respondents speak between 4 and 6 foreign languages.

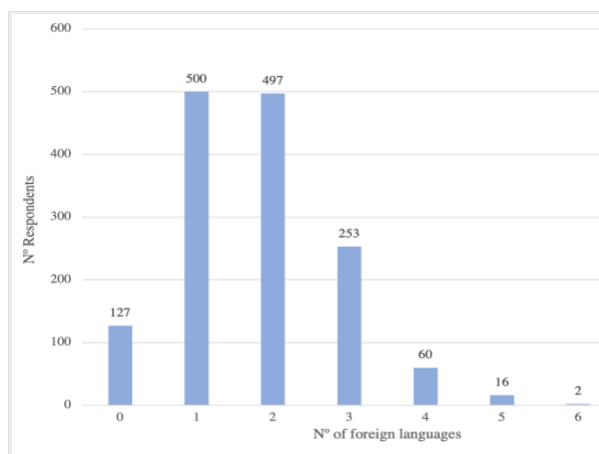


Figure 4: Number of foreign languages spoken by respondents

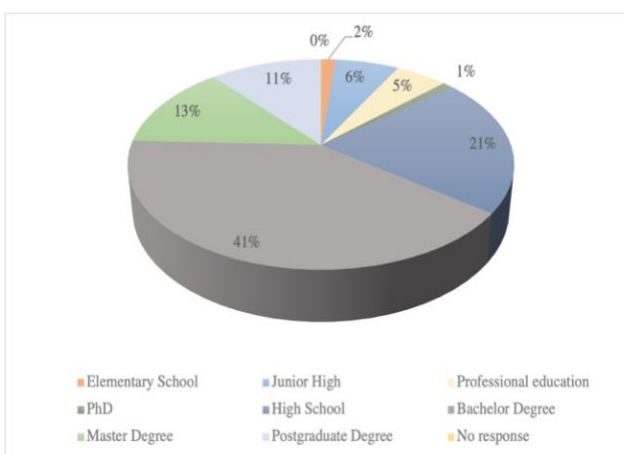


Figure 5: Highest level of education of respondents

During the questionnaire, the respondents indicated their current position in the firm, at the time. The majority is the Business Owner or a Managing Partner (23%), 12% of the respondents are Managers and 11% are Financial Chiefs. The positions of Managing Director or Chief Executive are held by 10% of the respondents, so as the position of Administrator. The positions of Financial Officer or Certified Accountant, Sales equal to

0%. 16% of the respondents selected the option “Other” when referring to the current position. Manager, Marketing Manager, International Director, and Export Manager correspond to a minimum percentage of the respondents (lower than 7%), being the last one in question equal to 0%. 16% of the respondents selected the option “Other” when referring to the current position.

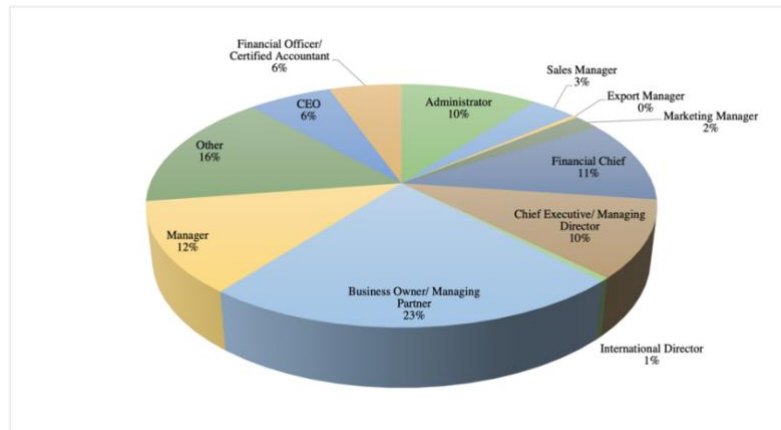


Figure 6: Position of the respondents at the time

5.1.2. Characterization of the Firms

The responding firms are mainly familiar owned (69%) and so is their management (60%). In this case, there are firms with familiar property and non-familiar management, and vice-versa.

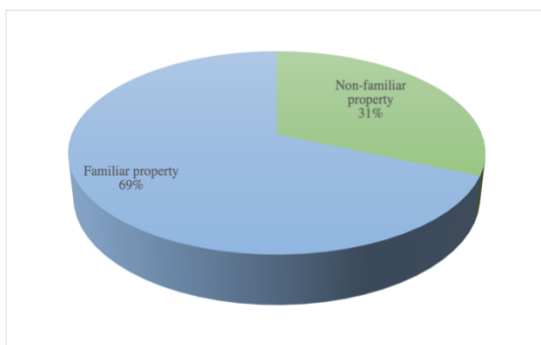


Figure 7: Familiar/non familiar property

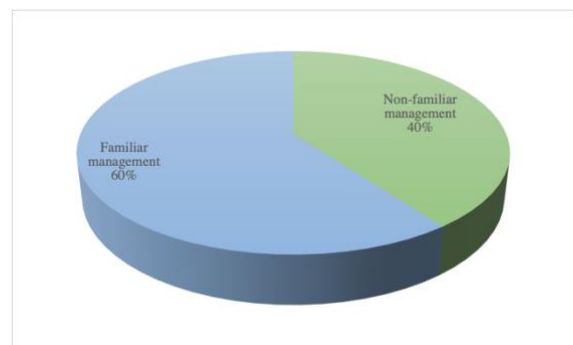


Figure 8: Familiar/non-familiar management

The firms’ internationalization occurred between 1850 and 2020. The majority of the responding firms internationalized their presence in the 21st century (approximately 76%), being the period from 2010 to 2020 the most selected by the respondents (631).

The number of firms internationalized until 1974 was very low (only 24 firms), after 1975, internationalization became more common between the responding firms.

Most of the firms started their international presence through exportation (78%), and 9% started from international agreements for product/service development. The remaining ones opted for subcontracting production overseas, between other modes with a minimal percentage in this study.

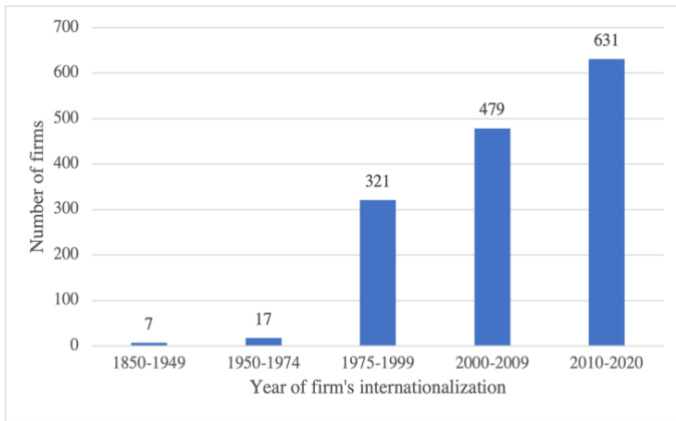


Figure 9: Year of firm's internationalization

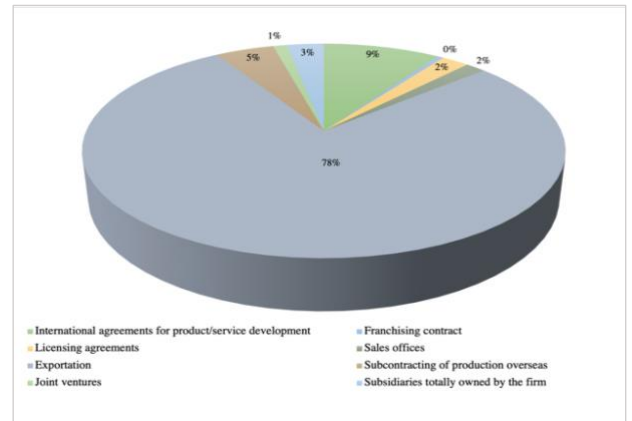


Figure 10: First Internationalization Mode used

5.2. Initial data screening

5.2.1. Missing values

The questionnaire was designed with only mandatory responses, which resulted in no missing values associated in the database.

5.2.2. Descriptive Analysis of the Measures

In order to better understand the constructs and its composing items, some statistical measures were conducted. The values of the mean, standard deviation, skewness, and kurtosis are presented for each construct in Table 4 (see appendix 3).

5.2.3. Normality

In order to identify data's normality, the analysis of the skewness and kurtosis is considered as a base to do so (Kline, 2015; Marrôco, 2018). Problems related to normality are considered when the skewness index is greater than |3.0| and the kurtosis index is greater than |10.0| (Kline, 2015). The values for the variables included in this study are

presented in Table IV (see appendix 3). The skewness indexes ranged between 0,01 and 1,286 (absolute values), which are considered within the limit established.

The kurtosis indexes present values between 0,02 and 2,046 (absolute values), being contemplated within the established limit. Hence, there are no problems related to normality in the data considered for this study.

5.2.4. Non-response Bias

To test non-response bias, we compared the answers of early and late participants (considering the first 75% and last 25% responses of the sample). To conduct this comparison, the mean of each control variable was calculated and compared. Since no significant difference were registered, we didn't find any problem resultant form this test.

5.2.5. Common-method Bias

Regarding the common-method biases, Harman's single factor test was performed to verify if it represents a problem for this study. Problems can be considered if a single factor is responsible for explaining the majority of the variance. The results related to this study (see Table V, appendix 4) do not show any reasons for concern. 32 factors were found, 6 with eigenvalues superior to 1. The first one accounts for only 29,178% of total variance (less than 50%), and the total of the factors account for 72,457% of the variance (more than 50%).

5.3. Assessment of Measurement Model

5.3.1. Reliability

To verify data reliability, the Cronbach's alpha (α) coefficients and the composite reliability (ρ_v) were analyzed for every measure. Both values should be superior to 0,6-0,7, considering additionally that the last one shouldn't be greater than 0,95 (Hair et al., 2018). As demonstrated in Table VI (see appendix 5), the values concerning both Cronbach's Alpha and Composite Reliability are within the established limits proposed by the author, varying between 0,839 and 0,943.

5.3.2. Convergent Validity

To assess convergent validity, it is necessary to check if the standardized loadings of items are above the suggested limit of 0,60 – 0,70 (Bagozzi & Yi, 1988, 2012; Garver & Mentzer, 1999). However, Hair et al. (2018) consider values above 0,5 as acceptable. The author also draw attention to the fact that loadings higher than 1 are an indicator of

problem with the data. As presented in Tables VI and VII (see appendix 5), all the measures and respective items are above 0,5, and there are only 3 items below 0,6, the limit suggested by Bagozzi & Yi (1988, 2012) and Garver & Mentzer (1999) (one of the Exploration items and two of the Crisis Impact on Performance).

5.3.3. Discriminant Validity

In order to verify discriminant validity, the Average Variance Extracted (AVE) was calculated for every construct. The value of AVE (ρ_c) should be superior to 0,5 (Hair et al., 2018). This condition is observed in all the constructs of this study (see Table VI, appendix 5), presenting values between 0,544 and 0,747.

Posteriorly, the correlation between the constructs is observed in order to assess the discriminant validity. To do so, the AVE of each construct is compared to the squared inter-construct correlation values associated to it. To confirm the existence of this validity, the value of the AVE estimates should be higher than every correlation with other constructs (Hair et al., 2018). In Table VIII (see appendix 6) is possible to observe the matrix constituted by the correlations between constructs. Based on that, it is possible to confirm that the value of the AVE estimate is superior to the correlations existent between the construct observed and the remaining ones, which means there is a discriminant validity in the data. This validity means that each construct accounts for its own items better than for the other constructs (Hair et al., 2018).

5.3.4. Overall Fit

To assess the Measurement Model validity, the analysis of the goodness-of-fit (GOF) was conducted. GOF “suggests how well the specified theoretical structure represents reality as represented by the data” (Hair et al., 2018, p. 635). In other words, the analysis of the GOF allows to verify if the model represents the reality as proposed. The chi-square statistic (χ^2) should be examined as it evaluates the overall model fit, evaluating the differences between the estimated and observed covariances (Hair et al., 2018). However, the authors enhance the fact that this measure is sensitive to sample size. Additionally, the degrees of freedom (df) are also considered as a mathematical representation of the amount of information available, (Hair et al., 2018). Based on the χ^2 and the df, the normed chi-square (χ^2/df) is also an important index. It represents the chi-square statistic adjusted by the degrees of freedom and its value should be 3,0 or less, with the exception of large samples (bigger than 750) (Hair et al., 2018), which is the case of this study.

The Goodness-of-Fit Index (GFI) is a measure of fit that indicates how much of the variance and covariance can be possibly explained by the model. Its value range from 0,0 to 1,0, having higher values as an indicator of better fit (Hair et al., 2018).

The Root Mean Square Error of Approximation (RMSEA) is a measure that tries to overcome the influence of sample size, by representing how a model fits the population instead of the sample (Hair et al., 2018). According to the authors for a sample bigger than 250 and less than 12 variables, the maximum value considered should be 0,07.

Additionally, incremental fit indices can also be considered. For that matter, the Normed Fit Index (NFI) and the Comparative Fit Index (CFI) are considered. The NFI estimates the relationship between the values of χ^2 in the hypothesized model and null model. A good NFI is considered for values higher than 0,9 (Hair et al., 2018). The CFI is based on the comparison of the fit of two different models (the hypothesized model and the base model) for the same data and can be considered as an improved version of the NFI (Hair et al., 2018). The authors refer that, for the sample size and variables considered in this study (as referenced before) the CFI must be equal or higher than 0,90.

The Parsimony Goodness-of-Fit Index (PGFI) can also be considered as it assesses the fit of the model using its relative complexity, from among a group of competing models.

In Table I, presented below, are presented the goodness-of-fit indexes for the measurement model. The value of normed chi-square (4,214) is higher than the limit proposed (3,0) but it is expectable since it is associated to a sample (1.455) bigger than the dimension referenced (750). The remaining indices present values within the limits suggested by the literature.

Table I: Goodness-of-Fit of Measurement Model

$\chi^2 = 1858,537$ (p=0,000)	df = 441	$\chi^2 / df = 4,214$		
RMSEA= 0,047	NFI = 0,951	CFI = 0,962	GFI = 0,922	PGFI = 0,77

5.4. Assessment of Structural Model

5.4.1. Overall Fit

As analyzed for the measurement model, the validity of the structural model should also be assessed. As mentioned in the previous section, the goal of this analysis is to verify if the structural model represents the reality as proposed (Hair et al., 2018). The structural model's Goodness-of-Fit indexes are presented below in Table II.

Like observed for the measurement model, the normed chi-square (4,708) is higher than the limit proposed (3,00) for the same reason as mentioned previously: the sample size bigger than the limited proposed. The remaining indices present values within the limits suggested by the literature.

Table II: Goodness-of-Fit of Structural Model

$\chi^2 = 2504,655$ (p=0,000)	df = 532	$\chi^2 / df = 4,708$		
RMSEA= 0,05	NFI = 0,936	CFI = 0,949	GFI = 0,903	PGFI = 0,763

5.5. Results

In this conceptual model, six variables were identified: Exploration, Exploitation, International Business Model Adaptation, International performance, Crisis Impact on Performance and Survival. These six variables are responsible for explaining about 72,5% of the observed variance, being all significant. The results of the Structural Model are presented in Table III, below.

Exploration registered a positive relationship with International Business Model Adaptation ($\beta=0,302$, $p<0,001$), therefore supporting H1. Exploitation also registered a positive relationship with International Business Model Adaptation ($\beta=0,126$, $p<0,001$), therefore supporting H2.

International Business Model Adaptation has a positive impact in International Performance ($\beta=0,460$, $p<0,001$), Crisis Impact on Performance ($\beta=0,204$, $p<0,001$) and Crisis Survival ($\beta=0,130$, $p<0,001$), supporting H3, H4 and H5, respectively.

Regarding the control variables, no significant relations to performance variables were registered.

Table III: Structural Model Results

Path	Estimate	SE	T-value	R ²	Hyp.	Result
Exploration→International Business Model Adaptation	0,302	0,073	7,494		H1	Yes(***)
Exploitation→International Business Model Adaptation	0,126	0,056	3,367	0,157	H2	Yes(***)
International Business Model Adaptation→International Performance	0,469	0,027	17,78	0,221	H3	Yes(***)
International Business Model Adaptation→Crisis impact on performance	0,204	0,030	7,479	0,047	H4	Yes(***)
International Business Model Adaptation→Crisis Survival	0,13	0,022	4,733	0,017	H5	Yes(***)
Control Variables						
Firm size→International Performance	0,033	0	1,382	-	-	-
Firm age→International Performance	-0,004	0,002	-0,122	-	-	-
International Experience→International Performance	0,035	0,004	1,142	-	-	-
Firm size→ Crisis impact on performance	0,022	0	0,832	-	-	-
Firm age→ Crisis impact on performance	-0,037	0,003	-1,123	-	-	-
International Experience→ Crisis impact on performance	-0,037	0,004	-1,105	-	-	-
Firm size→Crisis Survival	0,015	0	0,554	-	-	-
Firm age→Crisis Survival	0,008	0,002	0,236	-	-	-
International Experience→Crisis Survival	-0,004	0,003	-0,119	-	-	-

6. Discussion of Findings

This chapter's purpose is to discuss the results from the study conducted and identify the main outcomes and contributes to the field of international business. This research tried to bring light to the uncertainty associated to the international activity of firms considering the period of crisis currently lived.

The empirical study includes six variables related to international activity. Exploration, exploitation, international business model adaptation, international performance, crisis impact in performance and survival to crisis. The relationships established are positive, corresponding to a positive impact between each corresponding variables, accordingly to the relationships, already identified in the literature.

The positive relationship existing between both exploration and exploitation and business model adaptation is approached by different authors in the literature (Ahokangas & Myllykoski, 2014; Anzenbacher & Wagner, 2020; Colovic, 2021; Smith et al., 2010), namely in the adaptation of business model through exploration and exploitation (Kringelum & Gjerding, 2018). The results of this study demonstrate the same nature of relationship between both strategies and international business model adaptation in the Portuguese firms, during the COVID-19 pandemic crisis. The results from the study also corroborate Colovic (2021) conclusions regarding this relationship in the international context, showing the same effects as the ones observed by other authors in the domestic environment.

When observing the relationship between business model adaptation and international performance, the existing literature states the impact of business model adaptation in international performance as a positive one. Asemokha et al. (2019) observe this relationship in the context of SMEs. In turn, Heij et al. (2014), Colovic (2021) and Lonial & Carter (2015) consider the maintenance of competitive advantages as the motivator to adapt the business model, which leads to improvement in performance, corresponding to a positive relationship between the variables considered. The results of this study indicate a positive effect of international business model adaptation on international performance of Portuguese firms during the COVID-19 crisis. This firms are not only SMEs, but also medium and large firms showing the same relationship, independently of the firm's dimension. This represents an expansion of the existing scope.

Since this study focus the period of the COVID-19 pandemic, a dimension to consider is the context of crisis, characterized by Osiyevskyy et al. (2020) as a period of considerable environmental changes. Both Asemokha et al. (2019) and Lonial & Carter (2015) consider environmental changes when addressing this relationship between business model adaptation and international performance, observing the results already indicated. In this study, it is possible to observe the positive relationship between business model adaptation and international performance, meaning that the relationship between the variables maintain the same nature, under the context of the pandemic crisis.

After addressing the relationships between business model adaptation and performance, considering the context of crisis, the need to verify if the business model adaptation is related to the crisis impact on performance is identified in this study. The goal is to assess if the business model adaptation affects the crisis impact on performance as it does to performance itself, as shown previously. To the best of our knowledge, there are no prior studies considering this impact and, for that reason, this represents an exploratory approach. Considering that, in this investigation, the relationship observed between business model adaptation and crisis impact on performance is positive. These results allow to conclude that the adaptation of the business model affects the crisis impact on performance the same way it affects performance itself, on an international context.

Continuing to consider the relationship between business model adaptation and performance, the survival, as ultimate measure of performance (Naidoo, 2010; Sinha & Noble, 2008) was also considered relevant to analyze, especially considering the factor crisis which represents a high level of uncertainty and can result into difficulties for the majority of firms. Having that in mind, we believe that the relationship between international business model adaptation and crisis survival should be observed to conclude if the influence is in line with the one established between international business model adaptation and international performance. To the best of our knowledge, similarly to the previous case, there are no existing studies assessing this relationship. This study presents results that show concordance with the relationship between international business model adaptation and international performance, showing a positive effect of the business model adaptation on survival in the international context. As addressed, this relationship is studied considering the crisis factor, particularly the COVID-19 pandemic crisis.

In summary, the results are consistent with the initial expectations based on the existent literature and allow the support empirically the conceptual model.

The next chapter will contain the conclusions of the present study.

7. Conclusion, Limitations, and Further Research

7.1. Main Conclusions

The present study was developed based on a research question and respective research objectives, as previously addressed in chapter 1. In order to respond to this question – In which way did the COVID-19 pandemic crisis impacted firms' international activity and international performance? – an empirical study was conducted among Portuguese firms. The results of this study show that the COVID-19 pandemic crisis impacted and is still impacting on firms' activity. A crisis is a moment of quick abrupt changes (Osievskyy et al., 2020) and it is necessary to adapt the strategies used (Martí, 2017). This adaptation of strategy implicates the adaptation of the International Business Model, since this last reflects the first one (Casadesus-Masanell & Ricart, 2010). The RO 1 was related to the verifying the way in which firms adapt their strategy and business model. This objective is accomplished by examining the influence that two alternative strategies have to respond to the environmental changes: Exploration and Exploitation. The choice of any one of them impacts positively on the adaptation of the Business Model during the period of the pandemic crisis. This conclusion is also related to RO 2 – Ascertain the differences in the impact of exploration and exploitation in the Business Model Adaptation. As addressed before, each strategy corresponds to a different approach, being the exploration related to the search and development of new knowledge (Levinthal & March, 1993) as the exploitation relates to the use and improvement of current knowledge or opportunities (Levinthal & March, 1993; Uotila, 2017). For that reason each one has a different impact when used (He & Wong, 2004), but both exploration and exploitation impact Business Model Adaptation positively, as observed in this study.

Regarding RO 3 – To investigate the way in which the adaptation of the Business Model affects firms' international performance – this study demonstrates the positive impact of Business Model Adaptation in performance and, ultimately, in survival to the crisis. It also allows to observe the way in which International Business Model Adaptation

influences the crisis impact in performance, allowing a more positive impact of the crisis, when compared to no adaptation.

7.2. Theoretical Implications

This study permits us to address some theoretical implications in the field of international business. The model generated establish relationships between strategy, business model adaptation and performance, under the influence of a pandemic crisis occurring while the research is being developed. This simultaneity allows to explore a recent phenom, exploring its impacts as they are being felt by the firms.

The currently existing pandemic crisis has common factors to past crises, but it also has some singularities. One of the distinctive factors of the COVID-19 crisis is the existence of restrictive measures implemented by the countries and followed by firms to combat the propagation of the virus (Shayb & Muşetescu, 2020). Some of this measures consist in restrictions on international movement of people and products, lookdowns, quarantines and limitation of activities and events (Sharma et al., 2020; Shayb & Muşetescu, 2020; Torsello & Winkler, 2020; Wenzel et al., 2020). Additionally to this factor, the quickness of spread of the virus around the world, leading to chaos on the world economy (Sharma et al., 2020) turn this crisis into a unique one, with a set of repercussions that is still unknown. For this reason, the actions and impacts resulting from this crisis must be observed to understand how firms react to this new challenge.

Considering all this factors, this study approaches how firms are responding to this crisis and it is possible to conclude that, besides all the specificities, the relations established between strategy adaptation, business model adaptation and performance follow the behavior already identified and established in the literature in periods when there are no crisis.

7.3. Managerial Implications

This study also allows us to identify practical implications at a firm's level.

First, it provides us some information about the behavior of firms when facing an unknown environment associated to high levels of uncertainty. Therefore, both strategies based on exploration or exploitation are good paths to support the adaptation of the business model in a context of environmental changes.

Secondly, it is possible to conclude that firms must adapt their business model when facing a crisis, since it allows them to achieve better levels of performance. Additionally,

it results into a more positive impact of crisis on the performance and, ultimately, contributes to the crisis survival of the firm.

Third, the business model adaptation is relevant not only to improve the outcomes of crisis, but also to improve the international performance level in absolute evaluation.

In summary, firms must adapt their business model since it translates into a positive impact in their activity.

7.4. Limitations and Further Research

As mentioned in the previous sections, the COVID-19 pandemic crisis is still occurring. For that reason, all the data collected from firms is referent to the period between March and April 2021. This means that the overall consequences and effects of this crisis are still unknown. For that reason, in the future, researchers must observe the effective impact of this crisis on the firms studied to verify if the conclusions at the time are in concordance with those resulting from this study.

The relationships studied between international business model adaptation and both crisis impact on performance and crisis survival were based on the relationship between international business model adaptation and international performance, constituting an exploratory investigation, since there was no literature connecting those variables and studying the relationships established. For that reason, other studies should be conducted regarding these relationships to assess the impact observed at a wider scale.

Regarding the firms studied, some identified a possible delay on the recognition of the crisis impacts. This delay is due to the fact that during the period of research, some firms are still producing orders made prior to the crisis' beginning, so the lack of orders made during the crisis will only translate into decrease of work later. This is an additional reason to conduct research after the end of the pandemic crisis. That way, it will be possible to verify the total impact of this crisis in firms.

This is a study conducted in Portugal, therefore is limited to Portuguese firms. To overcome this limitation, studies like this one should be conducted in different countries in order to compare the results and assess the generalization of this conclusions.

Lastly, to ensure the proper execution of this research, the model considered is relatively simple. In the future, researchers can consider other variables like resilience, competitive

advantages, operational changes, or business model innovativeness to study the impact of the COVID-19 crisis in firms' international activity.

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Appendix

Appendix 1: Questionnaire

INSTRUÇÕES DE PREENCHIMENTO DO QUESTIONÁRIO

1. Este questionário dirige-se a uma grande diversidade de empresas pertencentes a diferentes sectores económicos, que prestam vários serviços ou produzem uma grande diversidade de produtos. Deste modo, caso alguma questão não se aplique à sua empresa, passe para a questão seguinte.
2. Neste questionário não há respostas certas ou erradas. O importante é o seu caso específico. Selecione a opção que melhor represente a sua opinião ou situação.
3. Este questionário foi elaborado de modo a ter a maioria das questões de resposta múltipla, para poder ser preenchido o mais rapidamente possível. A experiência mostra que em média o mesmo tem sido preenchido em aproximadamente 12 minutos.

SECÇÃO A – CARACTERIZAÇÃO DO RESPONDENTE

1. Indique, por favor, a sua idade. _____

2. Indique, por favor, o seu género. Masculino Feminino Não responde

3. Indique, por favor, como classificaria o seu nível educacional completo mais elevado:

4ª Classe

Licenciatura

9º Ano

Pós-Graduação ou Curso de Especialização

Ensino Secundário Completo (12º Ano)

Mestrado

Curso Profissional

Doutoramento

4. Quantas línguas estrangeiras fala fluentemente? _____

5. Foi um dos fundadores desta empresa? Sim Não

6. Atualmente, como define a sua posição na empresa?

Presidente do Conselho de Administração/
CEO

Diretor Comercial

Administrador

Diretor de Marketing

Diretor Geral ou Diretor Executivo

Diretor Internacional

Empresário/ Sócio Gerente

Diretor de Exportação

<input type="checkbox"/> Gerente	<input type="checkbox"/> Responsável Financeiro/ Certificado	<input type="checkbox"/> Contabilista
<input type="checkbox"/> Diretor Financeiro	<input type="checkbox"/> Outro	

7. De acordo com a informação presente no email que lhe foi enviado, pretende receber um relatório com as conclusões gerais do presente estudo? Sim Não

SECÇÃO B – CARACTERIZAÇÃO DA EMPRESA

1. Qual o ano de fundação da empresa? _____
2. Antes da crise de COVID-19, qual era o número de trabalhadores da empresa, aproximadamente? _____

3. Qual o peso aproximado dos clientes finais (B2C) e clientes empresariais (B2B) no seu volume de negócios (%) ?

Clientes individuais finais: ___%

Clientes empresariais: ___%

4. Como classifica a empresa quanto à sua propriedade?

Maioria da propriedade familiar Maioria da propriedade não-familiar

5. Como classifica a atual gestão da empresa?

Gestão familiar Gestão não-familiar ou profissional

6. Em que ano é que a empresa se internacionalizou pela primeira vez? (ou seja, teve receitas com as suas atividades internacionais - exportação de produtos, prestação de serviços no estrangeiro, receitas de outras formas contratuais, etc)? _____

7. Qual a primeira forma de atividade internacional usada pela empresa?

<input type="checkbox"/> Exportação	<input type="checkbox"/> Acordos internacionais para desenvolvimento de produtos ou serviços
<input type="checkbox"/> Contratos de licença	<input type="checkbox"/> Escritórios comerciais
<input type="checkbox"/> Contratos de franchising	<input type="checkbox"/> Subsidiárias detidas em parceria (Joint ventures)
<input type="checkbox"/> Subcontratação da produção no estrangeiro	<input type="checkbox"/> Subsidiárias detidas totalmente pela empresa

8. Atualmente, quais os modos de atividade internacional utilizados pela empresa?

<input type="checkbox"/> Exportação	<input type="checkbox"/> Acordos internacionais para desenvolvimento de produtos ou serviços
<input type="checkbox"/> Contratos de licença	<input type="checkbox"/> Escritórios comerciais
<input type="checkbox"/> Contratos de franchising	<input type="checkbox"/> Subsidiárias detidas em parceria (Joint ventures)
<input type="checkbox"/> Subcontratação da produção no estrangeiro	<input type="checkbox"/> Subsidiárias detidas totalmente pela empresa

9. Qual o número de mercados internacionais para os quais a empresa exportava regularmente antes da crise COVID-19? _____

10. Qual o número de países em que a empresa atua regularmente através de outras formas que não a exportação? _____

SECÇÃO C – CARACTERIZAÇÃO DA EMPRESA PRÉ-CRISE

1. Imediatamente antes de se iniciar a crise pandémica do COVID-19, ou seja, até março de 2020, como é que avalia em termos gerais a estratégia da sua empresa indicando o seu grau de concordância com as afirmações abaixo:

	1=		4 = <i>Nem concordo</i>			7 =	
	<i>Discordo</i>		<i>Nem discordo</i>			<i>Concordo</i>	
	<i>totalmente</i>					<i>totalmente</i>	
	1	2	3	4	5	6	7
a) Na minha indústria, a minha empresa é frequentemente a primeira a lançar novos produtos no mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Relativamente à concorrência, a minha empresa está sempre à frente na utilização de estratégias de publicidade ou promoção inovadoras.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Relativamente à concorrência, a minha empresa está sempre à frente no uso de estratégia de preço/ <i>pricing</i> inovadoras.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A minha empresa distingue-se da concorrência pela qualidade dos seus produtos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) A minha empresa enfatiza a redução de custos em todas as suas atividades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Na minha empresa, o processo produtivo muda constantemente com o objetivo de diminuição constante dos custos de produção.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) A minha empresa investe maioritariamente em projetos de grande dimensão, de forma a alcançar economias de escala.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Na minha empresa os custos são o fator mais considerado na escolha de um sistema de distribuição.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) A minha empresa tenta forçar a saída dos concorrentes do mercado através de um bom controlo de custos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) A minha empresa produz um único produto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) A minha empresa tenta especializar-se através da produção de um número limitado de produtos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) A minha empresa opera para um ou vários nichos de mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m) A minha empresa foca-se numa parte específica e limitada do mercado, com os seus produtos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECÇÃO D – EMPRESA DURANTE A CRISE

1. Tomando como ponto de partida a situação da sua empresa imediatamente antes da crise pandémica COVID-19, indique o grau em que a sua empresa foi afetada pela atual crise.

a) Afetada positivamente, de forma muito forte	<input type="checkbox"/>
b) Afetada positivamente, de forma significativa	<input type="checkbox"/>
c) Afetada positivamente, de forma moderada	<input type="checkbox"/>
d) Não afetada	<input type="checkbox"/>
e) Afetada negativamente, de forma moderada	<input type="checkbox"/>
f) Afetada negativamente, de forma significativa	<input type="checkbox"/>
g) Afetada negativamente, de forma severa e dura	<input type="checkbox"/>

2. Indique o seu grau de concordância com as afirmações abaixo, considerando a frase “Desde o início da crise COVID-19, a minha empresa pode ser descrita como uma que...”, tendo em conta a escala referida:

	1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) Procura novas ideias a nível tecnológico, pensando “fora da caixa”.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Baseia o seu sucesso na capacidade de explorar novas tecnologias.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Cria produtos/serviços inovadores para a empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Procura formas criativas de satisfazer as necessidades dos seus clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Aposta fortemente na entrada em novos segmentos de mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Identifica ativamente novos grupos de clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Se compromete a melhorar a qualidade e a baixar os preços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Melhora continuamente a fiabilidade dos seus produtos/serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Aumenta os níveis de automação das suas operações.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Questiona frequentemente os seus clientes relativamente à satisfação dos mesmos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Melhora continuamente a sua oferta, de forma a manter os seus clientes satisfeitos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) Penetra a sua base de clientes existente, mais aprofundadamente.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Em termos de **custos operacionais**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

	1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) Teve necessidade de renegociar os créditos bancários.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b)	Teve necessidade de renegociar os preços ou condições de pagamento com os fornecedores.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Teve necessidade de renegociar os preços ou condições de pagamento com os clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Teve que adiar novos investimentos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Em termos de **melhorias operacionais**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

		1 = Discordo totalmente			4 = Nem concordo nem discordo		7 = Concordo totalmente	
		1	2	3	4	5	6	7
a)	Criou ou melhorou um programa de lealdade.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Aumentou a taxa de resposta.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Reduziu os serviços aos clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Reduziu os serviços de apoio (ex: manutenção, qualidade, <i>back-office</i> , etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Em termos de **custos de mão de obra**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

		1 = Discordo totalmente			4 = Nem concordo nem discordo		7 = Concordo totalmente	
		1	2	3	4	5	6	7
a)	Teve que demitir ou dispensar trabalhadores para reduzir a mão-de-obra na empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Antecipou períodos de férias para reduzir a mão-de-obra da empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Diminuiu o número de dias/horas de trabalho por semana.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Intensificou as colaborações com universidades ou entidades públicas para desenvolver programas de estágio.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Congelou o valor dos salários.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	Substituiu onde e quando possível, trabalhadores mais bem pagos por trabalhadores mais baratos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	Aumentou a confiança em atividades em <i>outsourcing</i> (atividades de apoio).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Em termos de **atividade de marketing**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

		1 = Discordo totalmente			4 = Nem concordo nem discordo		7 = Concordo totalmente	
		1	2	3	4	5	6	7
a)	Manteve ou aumentou os gastos em publicidade e promoção.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Teve que entrar em novos segmentos de mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Teve que melhorar as atividades de promoção de produtos ou serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Teve que reduzir o orçamento alocado à responsabilidade social corporativa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Em termos de **inovação**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

	1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) Teve que introduzir novos produtos ou serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Teve que implementar estratégias de preço inovadoras.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Teve que adotar estratégias de marketing novas e inovadoras.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Teve que melhorar a estratégia de distribuição de produto/serviço.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Teve que melhorar a estratégia de preços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Teve que investir principalmente em grandes projetos para conseguir ganhar economias de escala.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Em termos de **concorrência**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

	1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) Tentou forçar os concorrentes a sair do mercado através de um bom controlo de custos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Entrou em novos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Entrou em novos segmentos de mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Reposicionou a oferta de produtos/serviços em segmentos de mercado específicos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Decidiu adotar uma estratégia competitiva baseada na melhoria contínua dos padrões de qualidade dos nossos produtos ou serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Selecionou os canais de distribuição adotando sobretudo decisões baseadas em custos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Se concentrou em produzir e distribuir uma gama de produtos e serviços limitada.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Fez uma comparação com os concorrentes e tentou imitar as suas estratégias.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Em termos de **política de preços**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

	1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) Procurou e explorou alternativas para o orçamento de custos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Reduziu o orçamento para a formação de trabalhadores.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Criou prémios para melhores sugestões dos trabalhadores para diminuir os custos e aumentar as vendas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Reduziu os preços habituais de venda dos produtos ou serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Em termos de **tecnologias de informação**, com o início da crise COVID-19, pode afirmar “A minha empresa...”

		1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
		1	2	3	4	5	6	7
a)	No site oficial da empresa, passou a disponibilizar-se uma loja online para comprar os produtos ou agendar os serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	No site oficial da empresa, incluiu mais <i>links</i> com mais informação.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	No site oficial da empresa, decidiu incluir mais informações sobre os produtos ou serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	No site oficial da empresa, decidiu usar recursos interativos de valor acrescentado (imagens 3D produtos, mapas interativos, webcams, livros de sugestões, conversores de moeda, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	No site oficial da empresa, decidiu usar serviço <i>online</i> de apoio e suporte ao cliente (FAQs, mapa do site, motor de pesquisa, Skype, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	No site oficial da empresa, decidiu usar métodos de pagamento seguros (ex.: PayPal).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	Aumentou o uso das redes sociais nas estratégias de marketing e promoção.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	Aumentou o uso das redes sociais para fazer uma análise competitiva e saber mais sobre os concorrentes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	Aumentou o uso das redes sociais para conhecer melhor as necessidades e desejos dos clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	Fez um esforço para responder adequadamente aos comentários positivos e negativos colocados online.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Em termos de **iniciativas de cooperação** com o início da crise COVID-19, pode afirmar “A minha empresa...”

		1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
		1	2	3	4	5	6	7
a)	Entrou em parcerias e alianças estratégicas com outras empresas para desenvolver produtos ou oferecer serviços conjuntos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Entrou em parcerias e alianças estratégicas para fazer atividades de marketing partilhadas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Entrou em parcerias e alianças estratégicas com outras empresas para gerir de forma conjunta processos de compra de produtos e serviços, para conseguir melhores preços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Entrou numa associação ou consórcio de empresas do seu sector.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Indique por favor o grau de concordância com as afirmações abaixo, relativas a possíveis mudanças no **modelo de negócio** da empresa durante desde o início da crise COVID-19:

		1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
		1	2	3	4	5	6	7
a)	Houve alteração nos clientes alvo da empresa durante a crise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	A oferta de produtos e serviço mudou durante a crise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c) O posicionamento da empresa no mercado alterou-se.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) As competência e recurso chave da empresa mudaram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) As atividades internas de criação de valor mudaram.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) O papel e envolvimento dos parceiros no processo de criação de valor alterou-se.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Houve alterações na distribuição.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Os mecanismos de receitas alteraram-se.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) A estrutura de custos alterou-se.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Houve uma grande mudança nas margens praticadas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Teve que se alterar a proposta de valor para os clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) Teve que se alterar o modelo de criação de valor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m) Teve que se alterar a lógica de geração de receitas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Ainda sobre o modelo de negócio, considerando agora apenas os **mercados internacionais** em que opera, indique o seu grau de concordância com as afirmações abaixo:

	1 = Discordo totalmente		4 = Nem concordo nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) Perante a crise COVID-19, a minha empresa foi capaz de realizar reconfigurações internas significativas, de forma a melhorar a sua proposta de valor para os clientes internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Com a crise COVID-19, a minha empresa identificou oportunidade internacionais, tendo conseguido reorganizar rapidamente os seus processos operacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Perante esta crise, a minha empresa foi capaz de reorganizar a sua rede de parceiros, de forma a melhorar a proposta de valor apresentada aos clientes internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Durante esta crise, as novas oportunidades de servir os clientes internacionais foram rapidamente compreendidas pela minha empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Considerando os desafios da crise, a minha empresa identificou oportunidades inovadoras para alterar os modelos de preço/pricing praticados em mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Em resposta à atual crise COVID-19, indique o grau de importância das afirmações abaixo sobre alterações na sua **estratégia internacional**:

	1= Nada importante		4 = Importância média			7 = Muito importante	
	1	2	3	4	5	6	7
a) Reduziram-se os custos associados aos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Aumentaram-se os esforços de marketing dirigidos aos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Foram preparados e implementados planos de crise para resposta aos mercados/clientes internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Houve melhorias nos produtos ou serviços dirigidos aos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Houve a necessidade de fazer parcerias e colaborações com outros negócios, para melhor responder aos mercados/clientes internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

f)	Foram introduzidos novos produtos ou serviços nos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	Foi reduzido o número de produtos ou serviços dirigidos a mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	Aumentou-se o esforço de vendas para novos clientes internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	Aumentou-se o esforço de vendas para entrar em novos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	Foram fomentadas novas parcerias internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k)	Passaram a ser usados novos fornecedores internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l)	Houve reorganização das operações dirigidas aos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m)	Houve alteração dos preços dos produtos ou serviços dirigidos a clientes internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECÇÃO E – DESEMPENHO DA EMPRESA DURANTE E APÓS A CRISE

1. Como avalia a forma como a atual crise COVID-19 tem afetado a sua empresa em cada uma das métricas operacionais identificadas abaixo, considerando a escala referida?

	1 = Impacto muito negativo		4 = Sem impacto		7 = Impacto muito positivo		
	1	2	3	4	5	6	7
a) Receitas das Vendas/Volume de negócios.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Rendibilidade.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Definição de preços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Valor médio das vendas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Nível de procura.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Custos fixos da empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Custos variáveis da empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Entrada em novos mercados.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Desenvolvimento de novos produtos/serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Qualidade dos produtos/serviços.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Considerando as suas expectativas iniciais quando começou a crise COVID-19, avalie o seu grau de satisfação com o desempenho que a sua empresa nos **mercados internacionais** durante este período de crise:

	1 = Nada Satisfeito		4 = Satisfação média		7 = Totalmente satisfeito		
	1	2	3	4	5	6	7
a) Peso dos mercados internacionais no volume de negócios da empresa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) Crescimento nos mercados internacionais com que trabalhamos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Resultados antes de impostos nos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Comparativamente com os seus concorrentes mais próximos, desde que começou a crise COVID-19, qual tem sido o seu desempenho nos **mercados internacionais** durante este período de crise:

	1= Muito pior		4 = Mais ou menos igual			7 = Muito melhor	
	1	2	3	4	5	6	7
a) Crescimento das vendas em mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Retorno do investimento nos mercados internacionais quando comparados com o mercado doméstico.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Sucesso dos novos produtos nos mercados internacionais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Por fim, como é que a sua empresa irá atravessar a atual crise COVID-19, indicando seu grau de concordância com as afirmações abaixo:

	1= Discordo totalmente		4 = Nem concordo Nem discordo			7 = Concordo totalmente	
	1	2	3	4	5	6	7
a) A minha empresa vai sobreviver à atual crise pandémica COVID-19.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A minha empresa possui a capacidade de superar os desafios da atual crise COVID-19.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A minha empresa está numa boa posição para fazer face ao abrandamento da atividade empresarial atualmente vivido, resultante da crise COVID-19.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) O volume de vendas diminuiu nos últimos meses em resultado da crise COVID-19, mas as vendas regressarão aos níveis pré crise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Questão Final

	1 = Muito reduzido		4 = Nem reduzido nem elevado			7 = Muito elevado	
	1	2	3	4	5	6	7
Indique, por favor, o seu grau de conhecimento sobre os tópicos das questões apresentadas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indique, por favor, o seu grau de conhecimento sobre o ISEG-Universidade de Lisboa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Muito obrigada pela sua participação!

O questionário chegou ao fim

A sua colaboração é essencial para o nosso estudo.

Com os melhores cumprimentos,

Beatriz Barros

Appendix 2: Email invite for the firms

Exmo(a). Sr(a),

Venho por este meio solicitar à sua empresa a colaboração para participar num projeto de investigação no âmbito da tese de mestrado em Gestão e Estratégia Industrial do ISEG (Universidade de Lisboa).

O principal objetivo deste projeto é **estudar o impacto que a actual crise da Pandemia COVID 19 teve na actividade internacional das empresas portuguesas**. Pretende-se entender as estratégias adotadas pelas empresas face a este contexto de crise.

O sucesso deste projeto passa em grande medida pela cooperação de uma grande diversidade de empresas. Deste modo, solicitamos que possa preencher um inquérito online, em que a quase totalidade das questões é de resposta múltipla, e que lhe ocupará aproximadamente **12 minutos**.

Atendendo à tipologia de questões colocadas, este inquérito deverá ser preenchido preferencialmente por um dos membros da equipa de administração ou de gestão da empresa (por exemplo, Presidente, Administrador, Diretor Geral, Sócio-Gerente, Empresário, Proprietário, Diretor, Gestor).

Por favor clique no seguinte endereço e será encaminhado para o inquérito:

<https://empresasimpactocovid.limesurvey.net/726663?token=REdoB&lang=en>

Ou copie e cole o seguinte link na sua barra de navegação.

As respostas são estritamente **confidenciais** e os dados apenas serão utilizados para fins estatísticos.

Como forma de agradecimento pela sua participação, e caso assim o deseje, ser-lhe-á enviado um relatório com as conclusões gerais do presente estudo.

Agradecendo desde já a sua cooperação e o seu tempo,

Com os meus melhores cumprimentos,

Beatriz Barros

Se existir qualquer questão no preenchimento do questionário, por favor não hesite em contactar-me:

Beatriz Barros (E-mail: beatrizbarros@aln.iseg.ulisboa.pt; Tlm: 968733300).

Appendix 3: Descriptive Analysis of Measures

Table IV: Descriptive Statistics of Measures

Construct	Items	Mean	Standard	Skewness	Kurtosis
Exploration	Explor_it1	4,62	1,699	-0,511	-0,390
	Explor_it2	4,50	1,688	-0,430	-0,550
	Explor_it3	4,66	1,620	-0,519	-0,293
	Explor_it4	5,51	1,390	-1,135	1,217
	Explor_it5	4,83	1,625	-0,601	-0,267
	Explor_it6	5,05	1,494	-0,668	0,020
Exploitation	Exploi_it2	5,67	1,236	-1,253	2,215
	Exploi_it3	4,83	1,569	-0,621	-0,054
	Exploi_it4	5,34	1,440	-0,865	0,499
	Exploi_it5	5,67	1,297	-1,286	2,046
	Exploi_it6	5,25	1,375	-0,806	0,635
	International business model adaptation	BMA_it1	3,63	1,833	-0,092
BMA_it2		3,44	1,845	0,055	-1,051
BMA_it3		3,44	1,791	0,024	-0,983
BMA_it4		3,81	1,875	-0,155	-0,978
BMA_it5		3,36	1,746	0,046	-0,920
International performance	IntPerf_itA1	1,765	1,765	-0,037	-0,816
	IntPerf_itA2	1,682	1,682	0,001	-0,822
	IntPerf_itA3	1,646	1,646	-0,043	-0,750
	IntPerf_itB1	1,541	1,541	-0,129	-0,351
	IntPerf_itB2	1,519	1,519	-0,191	-0,316
	IntPerf_itB3	1,523	1,523	-0,270	-0,235
Crisis impact on performance	Perf_Crisis_Imp_it1	3,56	1,708	0,236	-0,758
	Perf_Crisis_Imp_it2	3,56	1,587	0,149	-0,645
	Perf_Crisis_Imp_it3	3,70	1,340	-0,030	0,147
	Perf_Crisis_Imp_it4	3,61	1,604	0,166	-0,627
	Perf_Crisis_Imp_it5	3,72	1,797	0,136	-0,927
	Perf_Crisis_Imp_it6	3,60	1,421	-0,110	-0,146
	Perf_Crisis_Imp_it7	3,74	1,421	-0,023	-0,187
Crisis Survival	Surv_it1	5,96	1,290	-1,248	1,091
	Surv_it2	5,88	1,296	-1,174	1,092

Surv_it3	5,30	1,528	-0,753	0,056
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Appendix 4: Common-method Bias

Table V: Results of Harman's one factor test

Factor	Eigenvalues	% Of Variance	Cumulative %
1	9,337	29,178	29,178
2	5,020	15,689	44,867
3	3,451	10,784	55,651
4	2,195	6,861	62,511
5	1,741	5,441	67,953
6	1,441	4,504	72,457

Appendix 5: Convergent Validity and Reliability

Table VI: Measures factors loadings

Measures	Number of final items	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Exploration	6	0,588 ~ 0,816	0,869	0,855	0,544
Exploitation	5	0,621 ~ 0,879	0,839	0,860	0,555
International business model adaptation	5	0,835 ~ 0,895	0,936	0,936	0,747
International performance	6	0,709 ~ 0,935	0,943	0,929	0,690
Crisis impact on performance	7	0,563 ~ 0,933	0,922	0,920	0,628
Crisis Survival	3	0,881 ~ 0,957	0,911	0,922	0,799

Appendix 6: Items Factor Loadings

Table VII: Items factor loadings

Items	Description	Standardized Factor Loadings	
		Final	T-value
Exploration ($\alpha=0,869$; $\rho_V=0,855$; $\rho_C=0,544$)			
“Since the beginning of the COVID-19 pandemic crisis, our firm can be described as one that...”			
Explor_it1	looks for novel technological ideas by thinking “outside the box”.	0,729	20,85
Explor_it2	bases its success on its ability to explore new technologies.	0,738	21,033
Explor_it3	creates products or services that are innovative to the firm.	0,816	22,365
Explor_it4	looks for creative ways to satisfy its customers’ needs.	0,755	21,407
Explor_it5	aggressively ventures into new market segments.	0,637	26,811
Explor_it6	actively targets new customer groups.	0,588	-
Exploitation ($\alpha=0,839$; $\rho_V=0,860$; $\rho_C=0,555$)			
“Since the beginning of the COVID-19 pandemic crisis, our firm can be described as one that...”			
Exploi_it1	commits to improve quality and lower cost. ^a		
Exploi_it2	continuously improves the reliability of its product and services.	0,761	27,881
Exploi_it3	increases the levels of automation in its operations.	0,621	21,563
Exploi_it4	constantly surveys existing customers’ satisfaction.	0,723	26,5
Exploi_it5	fine-tunes what it offers to keep its current customers satisfied.	0,879	30,8
Exploi_it6	penetrates more deeply into its existing customer base.	0,716	-
International Business Model Adaptation ($\alpha=0,936$; $\rho_V=0,936$; $\rho_C=0,747$)			
BMA_it1	During the COVID-19 crisis, our firm was able to perform significant intern reconfigurations, to improve the value proposition to international clients.	0,835	39,851
BMA_it2	Because of the COVID-19 crisis, our firm was able to identify international opportunities, managing to reorganize its operational processes quickly.	0,895	44,84
BMA_it3	During the COVID-19 crisis, our firm was able to rearrange its partners network, in order to improve the value proposition presented to international clients.	0,880	43,594

BMA_it4	During the COVID-19 crisis, the new opportunities to serve international clients were quickly understood by our firm.	0,865	42,285
BMA_it5	Considering the challenges of this crisis, our firm identified innovative opportunities to adapt the pricing models used in international markets.	0,844	-
International Performance ($\alpha=0,943$; $\rho_V=0,929$; $\rho_C=0,690$)			
IntPerf_itA1	Expression of international markets on the firm's sales revenue.	0,907	59,72
IntPerf_itA2	Growth in the international markets we operate in.	0,918	61,777
IntPerf_itA3	Results before taxes in the international markets.	0,935	-
IntPerf_itB1	Growth of sales in international markets.	0,754	38,668
IntPerf_itB2	Return of the investment on international markets, when compared to domestic markets.	0,726	36,054
IntPerf_itB3	Success of new products in international markets.	0,709	34,596
Crisis Impact on Performance ($\alpha=0,922$; $\rho_V=0,920$; $\rho_C=0,799$)			
Perf_Crisis_Imp_it1	Sales revenue	0,933	59,255
Perf_Crisis_Imp_it2	Profitability	0,903	31,613
Perf_Crisis_Imp_it3	Pricing	0,718	62,187
Perf_Crisis_Imp_it4	Average deal size	0,918	47,453
Perf_Crisis_Imp_it5	Demand level	0,830	26,095
Perf_Crisis_Imp_it6	Firm's fix costs	0,589	24,53
Perf_Crisis_Imp_it7	Firm's variable costs	0,563	-
Perf_Crisis_Imp_it8	Development of new markets ^a		
Perf_Crisis_Imp_it9	New products/services development ^a		
Perf_Crisis_Imp_it10	Quality of products/services ^a		
Crisis Survival ($\alpha=0,911$; $\rho_V=0,922$; $\rho_C=0,799$)			
Surv_it1	Our firm will survive to the current COVID-19 crisis.	0,920	-
Surv_it2	Our firm is capable to overcome the challenges of the current COVID-19 crisis.	0,973	62,334
Surv_it3	Our firm is positively positioned to face up to the slowdown of the business activity currently existing, due to the COVID-19 crisis.	0,777	40,612
Surv_it4	Our sales revenue decreased in the last months due to the COVID-19 crisis, but the level of sales will return to the pre-crisis level. ^a		
Notes:	a – This item was deleted during the scale purification process.		

Appendix 6: Discriminant Validity

Table VIII: Correlation Matrix and Discriminant Validity

	1	2	3	4	5	6
1. Exploration	0,738					
2. Exploitation	0,711	0,745				
3. International Business Model Adaptation	0,404	0,321	0,864			
4. International Performance	0,144	0,153	0,464	0,831		
5. Crisis impact on performance	0,136	0,126	0,188	0,433	0,792	
6. Crisis Survival	0,215	0,259	0,113	0,25	0,294	0,894