

MESTRADO
GESTÃO E ESTRATÉGIA INDUSTRIAL

TRABALHO FINAL DE MESTRADO
DISSERTAÇÃO

RELEVANCE OF FAMILY BUSINESS LEGITIMACY AND THE
ATTRIBUTES OF NATION IN INTERNATIONALISATION.

SARA DANIELA FERREIRA GÓIS CAIRES

OUTUBRO – 2021



Lisbon School
of Economics
& Management
Universidade de Lisboa

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PORTER'S DIAMOND MODEL IN INTERNATIONALISATION.

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Abstract

This study aims to analyse the influence that a nation's attributes have on its level of internationalisation, as well as the relevance of family business legitimacy in both. To this end, we present a version of Porter's Diamond Model, by adding a new variable: the Family Business Legitimacy (FBL). We use three measures of internationalisation and for each measure we run six econometric models. The main conclusion drawn from this study is that the prevalence and prize of family businesses in a country positively influences its Exports and outward Foreign Direct Investment (FDI) flows and, consequently, its development. This study presents several contributions since it links the existing literature on International Trade theories with International Business theories and brings a new perspective to the Family Business literature.

Keywords: Family Businesses, Family Business Legitimacy, Exports, Foreign Direct Investment, Internationalisation, Competitive Advantage of Nations, Porter's Diamond Model, International Trade.

Resumo

Este estudo pretende avaliar a influência que os atributos de uma nação têm no seu nível de internacionalização, tal como a relevância da legitimidade das empresas familiares em ambos. Para tal, apresentamos uma versão do Modelo do Diamante de Porter, adicionando uma nova variável: a Legitimidade da Empresa Familiar. Utilizamos três medidas de internacionalização e, para cada medida, corremos seis modelos econométricos. A principal conclusão retirada deste estudo é que a prevalência e valorização de empresas familiares num país influencia positivamente os seus fluxos de Exportações e de Investimento Direto Estrangeiro (IDE) para o exterior e, conseqüentemente, o seu desenvolvimento. Este estudo apresenta várias contribuições, uma vez que liga a literatura existente sobre as teorias do Comércio Internacional com a dos Negócios Internacionais, e traz uma nova perspectiva à literatura sobre Empresas Familiares.

Palavras-chave: Empresas Familiares, Legitimidade da Empresa Familiar, Exportações, Investimento Direto Estrangeiro, Internacionalização, Vantagem Competitiva das Nações, Modelo do Diamante de Porter, Comércio Internacional.

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List of Abbreviations

4IR	Fourth Industrial Revolution
CAoN	Competitive Advantage of Nations
DC	Demand Conditions
EMP	Employment
EXP	Exports
FBL	Family Business Legitimacy
FBLI	Family Business Legitimacy Index
FDI	Foreign Direct Investment
FC	Factor Conditions
FDI	Foreign Direct Investment
FSSR	Firm Strategy, Structure, and Rivalry
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IMF	International Monetary Fund
INF	Inflation Rate
MKTSIZE	Market Size
WTF	World Trade Organization

1 Introduction

Internationalisation is not a new concept in the literature, having gained some importance since the 1980s (Knight, 2003). However, the definition of internationalisation can be analysed from different perspectives. From a microeconomic perspective, internationalisation can be seen as a company's "process of increasing involvement in international operations" (Welch & Luostarinen, 1988, p.36), or the process that leads a company to increase its value-added activities in the foreign markets in which the company operates (Meyer, 1996).

On the other hand, Daly (1999) has a more macroeconomic view of this concept, explaining that internationalisation refers to the rising importance of international trade and relations, treaties, and alliances among nations. It is in this perspective that there is usually some misunderstanding with the concept of globalisation. However, Daly (1999) clarifies that globalisation refers to the economic integration of many (previously national) economies into a global economy. Hence, the causes and consequences of globalisation are inserted in more political, social and cultural perspectives (Ibrahim, 2013; Weiss, 2000).

Despite the heterogeneity shown in the literature concerning the definition of internationalisation, it is possible to identify a relation between the two perspectives. International business is based on international economics, namely some international trade theories, such as the theory of comparative advantage (Melin, 1992).

For this reason, it makes sense to explore the relationship between a country's level of internationalisation and its characteristics. Porter (1990) was one of the first researchers to look into this subject, developing a study on the Competitive Advantage of Nations (CAoN), by structuring four attributes of nations in his famous Porter's Diamond model that aims to describe how the specificities of a nation explain the performance of its companies in foreign markets. This work is the basis of the Global Competitiveness Index (GCI), later developed with the aim of empirically and annually assessing countries' industrialisation, growth and development performance (Schwab, 2019), and will also be taken as a starting point for this research.

Since many economies see their business structures as being composed mostly of family businesses (Burkart et al., 2003; Chrisman et al., 2005; Osunde, 2017), it is also very relevant to add this perspective to the study. While plenty of research has been conducted in the literature on

family businesses, few draw macroeconomic consequences from this group of companies. Likewise, few studies linking the theories of international trade with those of international business have been conducted. Therefore, this study arises with the aim of bridging this gap, seeking to answer two main questions: “How do the attributes of a nation influence its degree of internationalisation?” and “What is the relevance of family businesses legitimacy in the attributes of the nation and its degree of internationalisation?”. To this end, we will draw on Porter's Diamond model and adapting a version of it, in line with the studies of Carney et al. (2017) and Berrone et al. (2020).

This study is subdivided into three main parts. First, a review of the existing literature on the theories that underpin international economics will be presented, evolving to the theories of international trade, Porter's nation attributes and, finally, family businesses and their role in the internationalisation of companies. Secondly, an empirical study will be carried out, through econometric models and their analysis. Finally, the main conclusions of this study and its contributions to the literature will be drawn.

2 Literature review

2.1 *International trade theories*

Taking the argument that the field of international business is based on international economics (Melin, 1992), we begin by exploring some theories of international trade.

The first theories of international trade have their roots in Mercantilism, the predominant economic mainstream in Europe during the XVI and XVIII centuries, whose central idea is that the accumulation of precious metals and a favourable balance of trade fosters a country's wealth, growth and well-being (Appleyard & Field JR., 2014). One of the first criticisms of this ideology was made by David Hume, with his "price-species-flow" mechanism, where he tried to explain that an accumulation of precious metals, together with a surplus trade balance would lead to an increase in the money supply and, consequently, to an increase in wages and prices (Appleyard & Field JR., 2014). Adam Smith also considered this "mercantile system" as defective, as he argues that a country's wealth should be seen by its productive capacity and that a positive trade balance supports the individual interests of merchants and manufacturers, which negatively affect the country's income. Accordingly, Smith developed the concept of the "invisible hand", advocating a non-interventionist policy (Appleyard & Field JR., 2014; Heckscher, 1935).

Adam Smith also introduced the idea of specialisation and exchange between countries, creating the theory of absolute advantages. To be exact, for Smith, countries should specialise totally in the good they produce (in relation to another country) with lower unit costs, exporting it to others less efficient countries and importing the goods in which other countries are more efficient. Thus, international trade, previously seen as a zero-sum game, is now seen as a positive-sum game, since all countries benefit by exporting the goods in which they are most profitable in producing and importing those that cost them most to produce. Although this theory was later condemned, it was very important in the development of the Classical world of international economics, where David Ricardo developed the theory of comparative advantage (Appleyard & Field JR., 2014; Heckscher, 1935).

David Ricardo saw advantages in trade where Adam Smith did not, introducing the idea that even if a country does not have absolute advantages in the production of a good, it may have relative advantages that justify specialisation in it (Appleyard & Field JR., 2014; Heckscher, 1935).

Let's clarify these differences. In absolute terms, when the cost of producing good X in country A is lower than that of producing it in country B, for Adam Smith, it is logical that country A specialises in the production of good X. However, in David Ricardo's perspective, the only costs that matter are the relative costs, in other words, it is evaluated how many units of good Y a country stop producing in order to produce one more unit of good X. If country A has a lower absolute cost of production than country B (when producing good X), but country B needs to spend fewer units of good Y to produce one more unit of good X, then country B is relatively more efficient at producing X and should specialise in it (Appleyard & Field JR., 2014).

Taking the example of the previous paragraph, is deduced that trade under the pattern of comparative advantage, with gains for both countries, imposes that country A specialises in the production of good Y, and country B in the production of good X. However, there is a critical factor to be included in this reasoning: the price of goods in the international market. International relative prices must fall strictly within the range of autarchic relative prices, i.e. country A (B) only imports good X (Y) if the traded price is lower than its relative cost of production (Appleyard & Field JR., 2014).

Of course trade does not take place under these unrealistic assumptions of there being only two goods trading between two countries. Thus, David Ricardo's theory extends to the concepts of production possibility frontier¹ (PPF) and consumption possibility frontier² (CPF). Hence, it is possible to consider all inputs used in the production of goods, to take into account productivity rates, wages and exchange rates, and to generalise the model's conclusions to more than two countries (Appleyard & Field JR., 2014). Based on the hypothesis that the theory of comparative advantage holds, a graphical analysis of FPP and FPC, before and after trade, reveals that there are benefits for the countries involved, as the overall consumption of the goods under analysis increases with trade (Appleyard & Field JR., 2014).

¹ Geometric locus of productive combinations at full employment.

² Geometric locus of the maximum consumption combinations associated with the income generated by a given production combination.

The Classical theory then demonstrates that regardless of the absolute advantages (or not) that one country has in relation to another, there is always the possibility of trade, as long as there are differences in the countries' production conditions. Even so, it does not give a plausible explanation as to why these differences between countries exist (Appleyard & Field JR., 2014) and this issue is the focus our study.

The development of the Classical theory gave rise to the Neoclassical theory, which argues that there are differences between countries not only in technology and factors of production, but also in terms of demand (consumer preferences). Although this study does not analyse in detail the Neoclassical theory, nor the theorems and corollaries that emerged in its wake, we highlight the Heckscher-Ohlin model that introduces the idea of relative efficiency. That is, considering two countries (A and B) and two factors (i and j), country A is abundant in i, relative to country B, if the relative price of factor i $\left(\frac{P_i}{P_j}\right)$ is lower in A (Appleyard & Field JR., 2014):

$$(1) \left(\frac{P_i}{P_j}\right)_A < \left(\frac{P_i}{P_j}\right)_B .$$

From equation (1) comes the following corollary: the relative price of a good will be lower in the country abundant in the factor in which the good is intensive (Appleyard & Field JR., 2014). This model and, in particular, this corollary is relevant to our study because they are based on the idea that the specificities of a country (both on the demand and supply side) affect its performance in the international market.

Since Heckscher-Ohlin model, more theories with different hypotheses emerged, seeking to complement what has already been developed, such as the "the imitation lag" hypothesis which reflects the time it takes for a country to reach the same level of technology as the innovating country (Appleyard & Field JR., 2014). As a result, it is possible to verify that the trend is that international trade theories consider more and more factors that influence the performance and attributes of a nation in order to better explain the differences in international competitiveness (Carney et al., 2017). This study builds on this trend, seeking to show that, in fact, there is a correlation between of a nation's attributes and its degree of internationalisation.

2.2 International trade advantages

Although the theories analysed in the previous section do not fully address our research question, they are based on an assumption pertinent to this study: differences in international performance are due to differences in countries' specificities. Nevertheless, the arguments of these theories did not allow for a full analysis of the advantages that having an open economy brings and it is to mitigate this gap that this chapter appears.

As previously mentioned, some advantages of international trade are the overall increase in consumption of the goods involved and the reduction of production costs (Appleyard & Field JR., 2014; Bienefeld, 1975). Still, most studies in this field confirm Granger Causality, meaning that having an open economy positively affects the long-run economic growth rate of that country (Musila & Yiheyis, 2015; Pilinkienė, 2016; Sarkar, 2008; Ulasan, 2012).

Dollar & Kraay (2003) add that there is a relationship between the quality of a country's institutions, its level of internationalisation and its economic growth. In other words, a country with better institutions not only shows greater economic growth, but also a higher flow of international trade which, in turn, also leads to greater economic growth (Dollar & Kraay, 2003). This logic reinforces our argument that a nation's attributes influence its degree of internationalisation and, consequently, its level of development. Indeed, "International organizations such as WTO³, IMF⁴, and World Bank are constantly advising especially developing countries to speed up the process of trade liberalization in order to achieve high economic growth" (Azid, 2015, p.1).

2.3 Internationalisation of companies

There are many advocates of international trade for the benefits it brings to the country. Still, it is also relevant to analyse the consequences that internationalisation brings to the country's companies.

³ World Trade Organization.

⁴ International Monetary Fund.

One of the reasons that lead companies to go international is to explore their competitive advantages (Dunning, 2000, 2001; Dunning & Lundan, 1998). When companies stop growing with their actual selection of products/markets, they can diversify their product-market strategies for business growth: market penetration; market development; product development; or diversification (Ansoff, 1957). This means that, when the current competitive advantage of companies ceases to have a positive effect, there are two possibilities: exploit that same competitive advantage in different markets (market development, and diversification strategies) or change the competitive advantage in current markets (market penetration, and product development strategies) (Andersen & Suat Kheam, 1998; Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975). This study focuses on the market development strategy.

To better understand the choice of the international strategy, it is essential to recognise its fit between the drivers of internationalisation, sources of competitive advantage, market selection, and entry modes. Johnson et al. (2008) clarify that the international strategy depends both on the external environment (drivers of internationalisation) and on the company's organisational capabilities, assessed by geographical advantages. In this line of thought, the choice of the international strategy influences the target markets and the ways of entering them (see Figure 1).



Figure 1 - International Strategy framework

Source: Johnson et al. (2008)

Concerning internationalisation drivers, it is possible to subdivide them into four types: market drivers, government drivers, cost drivers, and competitive drivers (Johnson et al., 2008). All in all, the drivers of internationalisation seek to capture similarities between markets and consumers, the ease with which governments allow internationalisation, the possibility of cost reduction and the exploitation of advantages that come from the interdependence and integration of several economies (Johnson et al., 2008).

The sources of competitive advantages can be national or international (Johnson et al., 2008). It is essential to explain that the international sources of competitive advantage differ from internationalisation drivers because they are associated with global sourcing, that is, purchasing products, services and components from the most appropriate suppliers, regardless of their location (Johnson et al., 2008). Nevertheless, this study considers specifically the sources of domestic advantage.

In essence, the combination of domestic factors and international configurations leads to a possible international competitive advantage. However, it is not always easy to perceive the most appropriate international strategy to enter in a given market (Johnson et al., 2008). Several researchers have looked into this topic and, although the main proposals remain those of Prahalad & Doz (1987), Bartlett & Ghoshal (1987, 1989, 2000), and Porter (1986), there is no compromise between the different theories, making it possible to state that this choice essentially involves deciding the degree of standardisation of a company's products and services (Johnson et al., 2008).

After choosing the international strategy, based on internationalisation drivers and sources of competitive advantage, companies must select the markets they intend to enter, as their degree of attractiveness depends on several factors, including the company size (Deaza et al., 2020; Johnson et al., 2008). Lastly, it is important to decide the most appropriate way of entering the selected market (Johnson et al., 2008). Companies can continue with their own production (then exporting their services or products), or allocate their production abroad, carrying out Agreements, Foreign Direct Investment (FDI), Joint-Ventures, among other entry modes (Buckley & Hashai, 2009). However, this study only considers Exports and FDI.

2.3.1 Export versus FDI

Exporting is the easiest way to internationalise and with less risk as it does not require extensive knowledge about non-domestic markets, nor does it entail a substantial allocation of resources (Cassiman & Golovko, 2011; Cavusgil et al., 2008). It is a strategy that concentrates all the supply chain activities in a single country, which then exports to third parties (Cavusgil et al., 2008; Porter, 1986). This entry mode becomes very relevant in this study, as it is responsible for the mass trade flows that is established worldwide (Cavusgil et al., 2008).

Alternatively, FDI is a more risky form of operation in foreign markets, since it requires a physical presence (Cavusgil et al., 2008). Thus, several activities in the supply chain are replicated in different countries (Porter, 1986), leading the company to control productive assets, such as capital, technology, labour, land, facilities and equipment (Cavusgil et al., 2008), in order to homogenise production and explore economies of scale (Porter, 1986). This internationalisation strategy is also relevant in this study, whereas FDI flows have become increasingly relevant to economies worldwide (Altomonte, 2000; Giuseppina, 2016; Sauvart et al., 2011).

2.4 The Competitive Advantage of Nations, Innovation, and Internationalisation

Porter (1990) argues that national companies gain competitive advantage at the international level due to the pressure and challenges they face in their domestic market, suggesting that, in a world where global competitiveness is increasing, the specifics of a nation (values, culture, history, economic structures, and institutions) are progressively more relevant to international success. Porter (1990) links companies' international competitiveness and their home country attributes, because he states that the key to a consistent international competitive advantage is innovating, and this is more conducive in nations that promote business rivalry and where consumers are more demanding.

As so, Porter (1990) believes that this ability to change and innovate is related to four national attributes (factor conditions; demand conditions; related and supporting industries; and firm strategy, industry, and rivalry), developing a model (the famous Porter's diamond model) which seeks to explain why there are nations more capable of innovating than others and, consequently, why they are more competitive in specific industries.

The "factor conditions" (FC) attribute refers to the nation's position regarding its factors of production, such as qualified labour, infrastructures, and raw materials. The "demand conditions" (DC) is related to the sophistication and size of the domestic market. The "related and supporting industries" links to local clusters and cooperation between companies in that cluster. Lastly, the "firm strategy, structure, and rivalry" (FSSR) aims to evaluate the conditions of nations that affect the creation, organisation and management of companies, as well as the nature of domestic rivalry (Johnson et al., 2008; Porter, 1990).

Later on, and following this line of thought, the Global Competitiveness Index Report was developed which incorporates 12 pillars that evaluate the competitiveness of a country in four groups: Enabling Environment, Human Capital, Markets, and Innovation Ecosystem (Schwab, 2019).

Corroborating Porter's theory, several researchers also believe that innovation is at the centre of companies' international competitiveness (Cassiman & Golovko, 2011; Lewandowska et al., 2016; Molero, 1998; Pla-Barber & Alegre, 2007). However, this study do not focuses on the consequences of innovation at the business level, but at the national level. In other words, we do not intend to study the relationship between the innovation of a company and its level of internationalisation, but rather the relationship between the specificities of a country (which, according to Porter (1990) foster innovation) and its degree of openness.

As seen in section 2.1 of this study, Adam Smith, David Ricardo and Heckscher-Ohlin (Appleyard & Field JR., 2014) argue that the competitive advantage of companies in foreign markets is due to country specificities (such as the predominance or higher quality of a particular factor of production), what Porter calls factor conditions (Andersson, 2004). Thus, our first hypothesis arises:

Hypothesis 1 (H1): Country's factor conditions will be positively related to the country's Internationalisation level (Exports, outward FDI, Global).

Regarding demand conditions, Porter (1990) considers that the size of the domestic market is of little relevance, but a few studies contradict this argument by showing that countries with limited domestic demand are more likely to internationalise, as opposed to countries with greater domestic demand (Murmman et al., 2015; Yang et al., 2007). Although Porter (1990) also considers that the more sophisticated a country's domestic demand is the more likely it is to internationalise, Murmman et al. (2015)'s perspective differs by considering that the origin of demand sophistication lies in the size of the country (a characteristic of secondary relevance to Porter). Thus, Murmman et al. (2015) corroborate Yang et al. (2007)'s argument that unfavourable conditions in domestic demand lead to a higher level of internationalisation by driving firms to explore new markets.

Burenstam-Linder (1961), on the other hand, uses demand conditions to try to explain different patterns of trade. He considers the demand conditions of third countries more relevant to analyse than those of the domestic country itself. This means that, for Burenstam-Linder (1961), a

more challenging domestic demand explains little of the country's own international trade flows, and that one should assess international trade as a whole, giving importance to the sophistication of demand that third countries have. In fact, he believes that differences in demand are caused by discrepancies in income. However, it becomes difficult to assess the impact of these differences on international trade since the same good may be equally demanded by the lower class in a rich country as by the upper class in a poor country (Burenstam-Linder, 1961).

According to Barnes & McTavish (1983), a sophisticated consumer is one who “is better equipped economically and educationally to deal with the complexities of the modern marketplace” (Barnes & McTavish, 1983, p.17), which means that this type of consumer is more receptive to innovation and is more likely to be satisfied with the purchase. Porter (1990) also associates this concept with innovation, reinforcing his argument that this is the key to sustained competitive advantage.

Although few studies have been carried out on this issue, Andersson (2004) brings a new perspective and believes that companies should allocate their activities in countries with more sophisticated consumers. Considering the literature developed in relation to market size and sophistication, it is expected that there is a negative relationship between demand conditions and the degree of internationalisation of a country. Accordingly, we hypothesise:

Hypothesis 2 (H2): Country’s demand conditions will be negatively related to the country’s Internationalisation level (Exports, outward FDI, Global).

Regarding the conditions of nations that affect the way companies operate, several studies can be taken into consideration. Cuervo-Cazurra (2006) believes that a country's level of corruption can limit its FDI flows. For example, countries with anti-corruption policies tend to be more restrictive in the countries they enter, while countries with a higher level of corruption tend to have higher FDI flows, because as they deal with this situation on a daily basis, they are not as strict in their choice of countries (Cuervo-Cazurra, 2006). Ma et al. (2016) and Gaur et al. (2018) show that there is a positive correlation between the degree of internationalisation of firms and some government policies and the institutional environment that the home country government provides. Trottman (2018) confirms Porter (1990)’s argument that companies in a very competitive domestic market tend to internationalise more, because once their development is conditioned by

competitors, they seek new markets where they can potentially achieve more. This leads to our third hypothesis:

Hypothesis 3 (H3): Country's firm strategy, structure, and rivalry will be positively related to the country's Internationalisation level (Exports, outward FDI, Global).

As mentioned earlier, this study seeks to present a version of Porter's Diamond model and bridge the gap that exists in the literature regarding the relationship between a nation's attributes and its degree of internationalisation. To this purpose, we include a new attribute: family businesses legitimacy (Berrone et al., 2020).

2.5 *Family Businesses*

There is no consensus in the literature as to the exact definition of a family business (Arregle et al., 2017; Chrisman et al., 2005; Chua et al., 1999; Graves & Thomas, 2008; Pukall & Calabrò, 2014; Steiger et al., 2015; Westhead & Cowling, 1998). However, it is possible to group all heterogeneous definitions into three main approaches (Steiger et al., 2015): components-of-involvement approach, essence approach, and F-PEC scale approach.

The components-of-involvement approach considers that a family business is one whose family constitutes the dominant group and, therefore, the most influential in the business (Basco, 2013; Steiger et al., 2015; Zellweger et al., 2010). The essence approach evaluates two aspects: the company's behaviour (if it typically acts as a family business) and its aspiration to be a family business. In this approach, it is also important that the family members who work in the company identify it as a family business (Chrisman et al., 2005; Chua et al., 1999; Litz, 1995). Finally, the third approach combines the first two on an *F-SPEC* scale, which measures the influence of the family in three dimensions: power (coincides with the involvement approach), experience (evaluates the advantages that family members bring to the company, taking into account the various generations) and culture (measures the compatibility between the company's vision and values, with those of the family). This scale aims to measure the family's involvement in the company, making it easily comparable with that of another company. Yet, it is not intended to clearly and accurately distinguish family businesses from non-family ones since, in this approach, the level of influence is measured on a continuous scale (Astrachan et al., 2002; Klein et al., 2005; Mazzi, 2011; Rau et al., 2018).

Several criticisms were made to the three approaches. Some authors consider that family involvement in the company is not enough to define a family business because the critical factor is to explain what kind of advantages this involvement can bring to the company's strategic process and its economic, behavioural and social performance (Chrisman et al., 2005; Chua et al., 1999; Pearson et al., 2008; Steiger et al., 2015). The essence approach is mainly criticised for the complexity of its measurement, given that the company's vision and behaviour are dimensions that are difficult to determine by third parties, and self-assessment becomes a partial measurement method (Basco, 2013; Chrisman et al., 2005; Gomez-Mejia et al., 2011; Steiger et al., 2015). Although there are not several criticisms of the F-SPEC scale, the authors themselves revisited the concept, clarifying some of its limitations, namely the difficulty in capturing the heterogeneity and multiple sources of family influence in the business (Rau et al., 2018).

2.5.1 Family Influence in the Internationalisation Process

Family businesses represent a group of companies that is numerically important for the economies (Burkart et al., 2003; Chrisman et al., 2005; Osunde, 2017), and, for this reason, many researchers have studied the influence of the family in several areas of activity, including companies' internationalisation process. In general, regardless of the approach that researchers use to define a family business, they believe that these companies have specific characteristics, which distinguish them from non-family businesses (Chua et al., 1999; Mazzi, 2011; Pearson et al., 2008; Rau et al., 2018).

However, just as there is no consensus on the definition of a family business, researchers also disagree on the family's role in the company's internationalisation process. Some academics argue that the family positively affects this process of opening to foreign markets. For example, Carr & Bateman (2009), through a study carried out on 65 large family businesses worldwide, concluded that family businesses reveal an orientation slightly higher for internationalisation when compared to non-family businesses. This study confirms the theory of Zahra (2003), which presents a positive relationship between the company's international activities and the level of family involvement in it. Still in this perspective, based on an empirical study carried out on 479 Austrian family businesses, Kraus et al. (2014) also concluded that the influence of the family has a considerable influence on the company's international activity.

In an opposite view, other researchers argue that the family has a negative impact on the internationalisation process. Fernández & Nieto (2006) through a *probit* model, concluded that the fact of firms being managed by family members is not significantly related with the internationalisation process. In a second model (*tobit*), they revealed that the type of company ownership influences the company's export behaviour, and the relationship is negative and statistically significant between family businesses and the intensity of exports. The study by Graves & Thomas (2006) favours the negative impact of the family on the internationalisation process, as it finds that the management capacity of family businesses falls short of their non-family competitors, which have higher levels of internationalisation.

Cerrato & Piva (2012) present a more neutral view of this topic, stating that, despite the involvement of the family in companies negatively influencing their export propensity, once the decision to go international is taken, the degree of openness to the outside and the geographical extension of family businesses do not differ significantly from non-family businesses.

Although there is heterogeneity in the literature concerning this topic, these distinct theories contribute to a greater perception of the importance that the study of family businesses brings, not only to microeconomic areas, such as management and business strategy, but also to macroeconomic domains, since it allows the analysis of standard behaviours, critical in the adoption of public policies.

2.5.2 *Family Business Prevalence and Family Business Legitimacy*

As previously seen, many studies have already been carried out to assess the family influence in companies' internationalisation process, but few relate the country's internationalisation level with its prevalent typology of companies. The present study intends to fill this gap, connecting studies on family businesses and studies on countries' international competitiveness.

Given the high percentage of family businesses worldwide (Burkart et al., 2003; Chrisman et al., 2005; Osunde, 2017), the family is seen as a driving force of the economy in many countries, as the ways of doing business and the entrepreneurial culture are congruent with typical family values (Berrone et al., 2020). Thus, in an international competitiveness study, we must consider the prevalence of family businesses among the selected economies, as the aggregation logic produces macroeconomic consequences (Carney et al., 2017).

Carney et al. (2017) calculated the prevalence of family businesses by using the percentage of the number of family firms listed in each country on the total of listed firms. Unlike Carney et al. (2017) that only explore the moderation effect of family firm prevalence, we hypothesise that the prevalence of family businesses has direct consequences for a country's exports and FDI flows. However, we rely on the concept of Family Business Legitimacy (FBL), which can be seen as a cultural indicator for the social acceptance of family businesses within a country and therefore can explain the cross-country differences in family business prevalence, strategies adopted, and international performance (Berrone et al., 2020). The study of Berrone et al. (2020) includes only listed family firms and, as countries with higher FBL tend to have a higher prevalence of family businesses, in this study we expand the argument of Carney et al. (2017), not only by exploring the direct effects they bring to export and FDI flows, but also by expanding the concept used in this type of analysis.

Despite the heterogeneity of the relationships between the family ownership of firms and their level of internationalisation, more recent studies show that the family positively influences both the firm's export (Hanley et al., 2020) and FDI flows (Bannò & Sgobbi, 2016; Kao & Kuo, 2017). Hereupon, we imply the following hypothesis:

Hypothesis 4 (H4): Country's Family Business Legitimacy will be positively related to the country's Internationalisation level (Exports, outward FDI, Global).

Still, as in the study by Carney et al. (2017), the present research also proposes that FBL indirectly affects the remaining attributes of a nation:

Hypothesis 5 (H5): The country's Family Business Legitimacy will show a moderation effect in the relationship between:

- a) Factor conditions and country's Internationalisation level (Exports, outward FDI, Global);
- b) Demand conditions and country's Internationalisation level (Exports, outward FDI, Global);
- c) Firm strategy, structure, and rivalry and country's Internationalisation level (Exports, outward FDI, Global).

Our conceptual model summarizes the proposed hypotheses (Figure 2).

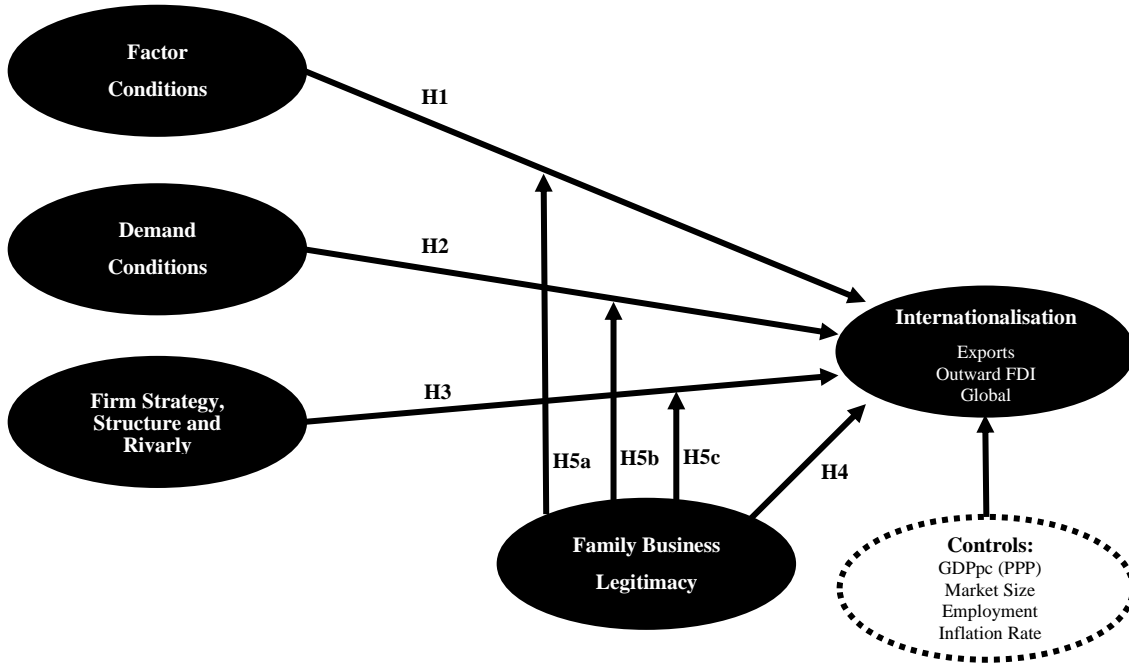


Figure 2 - Conceptual Model

3 Empirical Assessment

3.1 Sample and data description

This study aims to assess the influence of nation attributes on its degree of internationalisation, as well as the relevance of the family business legitimacy in both. To this end, we have relied on panel data from 2018 to 2019. The time horizon for this analysis was chosen based on available data from the latest version of the Global Competitiveness Index. GCI 4.0 emerged in the context of the Fourth Industrial Revolution (4IR), which created new possibilities for companies, government and individuals, but accentuated the disparities between economies, leading to a need for the inclusion of the 4IR in the degree of competitiveness of each country (Schwab, 2018). As such, the GCI 4.0 has become the most up-to-date and accurate indicator to assess a nation's attributes.

As mentioned above, we intend to measure the degree of internationalisation of a country through its export and outward FDI flows, using three econometric models. The models are

composed of four explanatory variables: Factor Conditions (FC_t), Demand Conditions (DC_t), Firm Strategy, Structure and Rivalry ($FSSR_t$), and Family Business Legitimacy (FBL_t); one moderating variable (FBL_t), with three effects: $FBL_t * FC_t$, $FBL_t * DC_t$, and $FBL_t * FSSR_t$; and four control variables: Gross Domestic Product *per capita* converted by purchasing power parity (GDP_t), Employment (EMP_t), Market Size ($MKTSIZE_t$), and Inflation Rate (INF_t).

In order to test **H1**, **H2** and **H3** we resorted to Global Competitiveness Index 4.0 (GCI) (Schwab, 2019). Therefore, we were based on the methodology used by Carney et al. (2017) and considered the GCI's Pillars as a good measurement of Porter's national competitiveness determinants. These twelve pillars are organised into four groups: Enabling Environment (1st – 4th Pillars), Human Capital (5th – 6th Pillars), Markets (7th – 10th Pillars), and Innovation Ecosystem (11th – 12th Pillars) (Schwab, 2018, 2019).

Considering the Enabling Environment group, the 1st Pillar (Institutions) includes twenty indicators and describes security, property rights, social capital (seen through the quality of relationships and social cohesion that exists in a country (Schwab, 2018)), checks and balances, transparency and ethics, public-sector performance, and corporate governance. The 2nd Pillar (Infrastructure) consists of twelve indicators and quantifies the quality and extension of transport infrastructure (road, rail, water, and air) and utility infrastructure. The 3rd Pillar (ICT Adoption) has five indicators that capture the dissemination of specific information and communication technologies. The 4th Pillar (Macroeconomic stability) evaluates the inflation level and the fiscal policy's sustainability through two indicators (Schwab, 2018, 2019).

In the Human Capital group, the 5th Pillar (Health) has a single indicator: Health-Adjusted Life Expectancy (HALE), which gives the average number of years a newborn can expect to live in good health. The 6th Pillar (Skills) aims to explain the workforce's general level of skills and the quantity and quality of education through nine indicators (Schwab, 2018, 2019).

Concerning the Markets group, the 7th Pillar (Product Market) evaluates the extent to which a country provides an equitable playing field for all companies (domestic competition), and the country's trade openness. The 8th Pillar (Labour Market) has twelve indicators and clarifies the country's human resources leverage and management. The 9th Pillar (Financial System) encompasses firms' availability of credit, equity, debt, insurance, and other financial products, as well as the alleviation of risk-taking and opportunistic behaviour of the financial system. The 10th

Pillar (Market Size) is composed of two indicators that determine the sum of consumption, exports, and investment (at a country level) (Schwab, 2018, 2019).

Lastly, in the Innovation Ecosystem group, the 11th Pillar (Business Dynamism) reflects the private sectors' ease of new technologies adoption and new work organisation methods. The 12th Pillar (Innovation Capability) illustrates the degree of influence that a country's environment has on its capacity to diversify, develop and commercialise new products (Schwab, 2018, 2019).

For Factor Conditions (FC_t), we averaged the score (0 to 100 scale) of the 1st, 2nd, 3rd, 5th, and 6th Pillars. For Demand Conditions (DC_t), we deemed the 10th and 12th Pillar's score. For Firm Strategy, Structure, and Rivalry ($FSSR_t$), we considered 7th, 8th, 9th, and 11th Pillars' score.

Essential to our study is the Family Business Legitimacy variable (FBL_t), and its measure. We defined FBL as the country's willingness to accept and prize family business. As so, we used the Family Business Legitimacy Index (FBLI), developed by Berrone et al. (2020), that captures cross-country differences in Family Firms' prevalence (FFP), strategies, and performance, so that hypothesis **H4** could be tested. This variable is assumed to be constant over the years due to its cultural nature and the short gap between the first year of analysis and the last one.

Following the procedures defined by Diamantopoulos & Winklhofer (2001), Berrone et al. (2020) grouped twenty items into five components: intergenerational survival orientation, continuity orientation, network-based relations, in-group solidarity, and patriarchal domination.

The intergenerational survival orientation portrays the commitment of generations to remain in a family business. The second component seeks to understand whether the administration of the family business has a continuity orientation that has been passed down from generation to generation. Thirdly, the network-based relations reflects the social capital that comes from the business network. The predominance of family businesses as a power-driven for economic exchange in society is assessed by the in-group solidarity component and, lastly, the patriarchal domination weighs the influence that family businesses have on gender inequalities in work and remuneration that stem from the politics of the head of household (Berrone et al., 2020).

The Family Business Legitimacy Index scores 83 countries worldwide (Berrone et al., 2020), which is why our initial sample included only this group of countries.

With the purpose of testing hypotheses **H5a**, **H5b**, and **H5c**, we centred the values of Family Business Legitimacy (FBL_t), Factor Conditions (FC_t), Demand Conditions (DC_t), and Firm

Strategy, Structure, and Rivalry ($FSSR_t$) to its means, respectively, and defined the three moderation effects: $FBL_t * FC_t$, $FBL_t * DC_t$, and $FBL_t * FSSR_t$. For control variables, we added Gross Domestic Product *per capita* converted by purchasing power parity (GDP_t), Employment (EMP_t), Market Size ($MKTSIZE_t$), and Inflation Rate (INF_t). Control variables were directly obtained from The World Bank database (The World Bank, 2020).

We applied the natural logarithm to our dependent variables: outward FDI (FDI_t), Exports (EXP_t), and Global ($GLOBAL_t$). The Global variable consists in the sum of exports and outward FDI flows. As we only considered net outward FDI and net export flows, some countries under analysis exhibited negative values. As so, our sample was reduced to 69 different countries (for exports and global), and 63 different countries (for outward FDI).

Table 1 summarises the operationalization of the measures for all variables, as well as data sources.

Table 1 - Variables, measures, and data sources

Variable	Measure	Source
Exports	Natural logarithm of exports divided by GDP. Exports is the sum of the value of all goods and services provided by a respective country to the rest of the world, plus its primary income receipts. Data in current U.S. dollars.	Computed using data from World Bank, 2018-2019.
Outward FDI	Natural logarithm of foreign direct investment (net outflows) divided by GDP. Foreign direct investment refers to direct investment equity flows in an economy, including equity capital, reinvestment of earnings, and other capital. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on an enterprise resident's management in another economy. Ownership of 10 per cent or more of the ordinary shares of voting stock is the criterion for determining the existence of a direct investment relationship. Data are in current U.S. dollars.	Computed using data from World Bank, 2018-2019.
Global	Natural logarithm of the sum of exports and outward foreign direct investment, both divided by GDP. Data are in current U.S. dollars.	Computed using data from World Bank, 2018-2019.

Factor Conditions	Average of the World Economic Forum Global Competitiveness Index 4.0's 1 st , 2 nd , 3 rd , 5 th and 6 th Pillar [0–100 (best)].	Computed using data from Global Competitiveness Index 4.0, 2018-2019.
Demand Conditions	Average of the World Economic Forum Global Competitiveness Index 4.0's 10 th and 12 th Pillar [0–100 (best)].	Computed using data from Global Competitiveness Index 4.0, 2018-2019.
Firm Strategy, Structure, and Rivalry	Average of the World Economic Forum Global Competitiveness Index 4.0's 7 th , 8 th , 9 th , and 11 th Pillar [0–100 (best)].	Computed using data from Global Competitiveness Index 4.0, 2018-2019.
Family Business Legitimacy	Measured through Family Business Legitimacy Index.	Berrone et al (2020).
Gross Domestic Product	Per capita values for Gross Domestic Product, which is the sum of gross value added by all resident producers in the country plus any product taxes and minus any subsidies not included in its value. Indicator converted by purchasing power parity (PPP).	Data from World Bank, 2018-2019.
Employment	The portion of a country's population that is employed. An employed person is considered to be over 15 years old, involved in any activity of producing goods or providing services with remuneration or profit during a specific period.	Data from World Bank, 2018-2019.
Market Size	The total population of a particular country. The values are midyear estimates.	Data from World Bank, 2018-2019.
Inflation	Annual percentage change in the average consumer's cost of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. Measured by the consumer price index.	Data from World Bank, 2018-2019.
Year19	Dummy variable. It equals 1 when the collected values are from 2019, and 0 when the collected values are from 2018.	-

3.2 Methodology and method of analysis

As the same group of countries was assessed in two different years (2018 and 2019), we identified our data as panel data (Cameron & Trivedi, 2009). Our panel variable is strongly

balanced, meaning that there is no missing information (Cameron & Trivedi, 2009; Wooldridge, 2016). Accordingly, to test the previous hypotheses, we used a *pooled* OLS Regression with cluster-robust standard errors, presented as follows:

$$(1) \quad EXP_{it} = \beta_0 + \beta_1 FC_{it} + \beta_2 DC_{it} + \beta_3 FSSR_{it} + \beta_4 FBL_{it} + \beta_5 (FC_{it} * FBL_{it}) + \beta_6 (DC_{it} * FBL_{it}) + \beta_7 (FSSR_{it} * FBL_{it}) + \beta_8 GDP_{it} + \beta_9 EMP_{it} + \beta_{10} MKTSIZE_{it} + \beta_{11} INF_{it} + \beta_{12} YEAR19_t + u_{it}$$

$$(2) \quad FDI_{it} = \beta_0 + \beta_1 FC_{it} + \beta_2 DC_{it} + \beta_3 FSSR_{it} + \beta_4 FBL_{it} + \beta_5 (FC_{it} * FBL_{it}) + \beta_6 (DC_{it} * FBL_{it}) + \beta_7 (FSSR_{it} * FBL_{it}) + \beta_8 GDP_{it} + \beta_9 EMP_{it} + \beta_{10} MKTSIZE_{it} + \beta_{11} INF_{it} + \beta_{12} YEAR19_t + u_{it}$$

$$(3) \quad GLOBAL_{it} = \beta_0 + \beta_1 FC_{it} + \beta_2 DC_{it} + \beta_3 FSSR_{it} + \beta_4 FBL_{it} + \beta_5 (FC_{it} * FBL_{it}) + \beta_6 (DC_{it} * FBL_{it}) + \beta_7 (FSSR_{it} * FBL_{it}) + \beta_8 GDP_{it} + \beta_9 EMP_{it} + \beta_{10} MKTSIZE_{it} + \beta_{11} INF_{it} + \beta_{12} YEAR19_t + u_{it}$$

To detect the presence of heteroscedasticity in the models we resorted to the Breusch-Pagan test, leading us to reject this hypothesis ($p > 0.10$). The three models and the Breusch-Pagan test were estimated using Stata Software version 16. A Pearson correlation matrix was carried out using the Statistical Package for Social Sciences (SPSS) Software version 25.

4 Data Analysis and Discussion of Results

The aim of this chapter is to analyse the relationships between the variables described above, as well as verify the defined hypotheses. First a purely descriptive analysis of the results will be performed and then these will be discussed and compared with the literature review previously carried out.

4.1 Data Analysis

Table 2 shows the the Pearson correlation matrix of the variables studied, as well as the mean and standard deviation for each variable. Through a brief analysis, it is possible to verify a significant relationship between almost all the exploratory variables and the three dependent variables ($p < 0.01$), indicating that the attributes of a nation impact its level of internationalisation.

However, it should be noted that the FBL variable shows a significant relationship not only with the variables that capture the level of internationalisation of a country, but also with the remaining exploratory variables (FC, CD and FSSR), for $p < 0.01$. Thus, it can be stated that the prevalence of family businesses is directly and indirectly related with the level of internationalisation of a country, as it influences export and outward FDI flows, along with the conditions of the nation's other attributes. It is also important to note the significant relationship that most of the control variables show with the remaining variables ($p < 0.01$).

Table 2 - Pearson Correlation Matrix

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Exp	1											
2. FDI Outflows	0,55**	1										
3. Global	0,99**	0,59**	1									
4. FC	0,56**	0,61**	0,57**	1								
5. DC	-0,03	0,42**	0,05	0,66**	1							
6. FSSR	0,47**	0,57**	0,48**	0,84**	0,67**	1						
7. FBL	-0,29**	-0,39**	-0,29**	-0,77**	-0,60**	-0,73**	1					
8. GDP	0,67**	0,57	0,68**	0,82**	0,55**	0,77**	-0,65**	1				
9. Emp	0,04	0,16	0,04	0,07	0,05	0,24**	-0,13	0,25	1			
10. MktSize	-0,34**	-0,08	-0,34**	-0,16	0,31**	-0,09	0,13	-0,23**	-0,02	1		
11. Inflation	-0,35**	-0,27**	-0,36**	-0,56**	-0,22**	-0,46**	0,43**	-0,44	-0,18*	0,17	1	
12. Year19	-0,01	0,10	0,01	0,02	0,01	0,011	0,00	0,02	0,01	0,00	-0,10	1
Mean	-0.79	-4.90	-0.77	69.31	57.78	63.84	0.60	35369.30	56.97	84420342.12	2.58	n.a.
s.d.	0.76	1.63	0.75	13.21	14.34	9.30	0.25	25682.84	9.06	234788646.1	2.96	n.a.
VIF				7.03	3.10	4.42	2.73	3.78	1.28	1.615	1.61	1.01
Tolerance				0.14	0.32	0.23	0.37	0.27	0.78	0.619	0.621	0.99

Significance levels: ** $p < 0.01$; * $p < 0.05$; Dummy Variable: Year19.

In a more detailed analysis, it is observed that there is a positive and significant correlation between the three dependent variables (Exports, outward FDI and Global) and the factor conditions indicator, showing that a country with qualified labour, good infrastructure and access to raw materials has a higher degree of internationalisation. The same happens with the firm strategy, structure, and rivalry indicator, revealing that a nation has a higher degree of internationalisation if it fosters national competitiveness and offers better conditions to create and manage firms. In both cases, the correlation is stronger in the outward FDI variable.

As for the demand conditions indicator, it only shows a positive relationship with outward FDI flows, meaning that countries with more sophisticated domestic markets have lower export flows

and, consequently, a lower degree of internationalisation (since export flows are, in general, much higher than outward FDI flows, influencing the Global variable more). On the other hand, and contrary to our expectations, the FBL indicator relates negatively to the dependent variables and to the three indicators of Porter's diamond.

To test the multicollinearity of the models, we used the Variance Inflation Factor (VIF). Through its analysis, we ruled out the multicollinearity problem, since the VIF values are lower than 10 and the tolerance is above 0.10 for all variables in the three models (Hair et al., 2009; Kutner et al., 2004). The collinearity statistics presented in Table 2 concern those of the model whose dependent variable is Global. The values of the remaining models were similar and therefore were not presented.

In order to identify to what extent the attributes of a nation can explain the export and outward FDI flows, a regression analysis was carried out, whose results are summarized in Tables 3, 4, and 5. In Model 1 (Table 3), the relationships between export flows and all variables (independent, moderating and control) were analysed. In Model 2 (Table 4), the same reasoning analysis is performed but with the dependent variable outward FDI. Finally, Model 3 (Table 5) presents the link between all variables and export and FDI flows together, through the Global variable.

Each of the three models was subdivided into 6 sub-models. First, we included only the control variables (models (1.1), (2.1) and (3.1)). Then, we estimated the regression with just the direct explanatory variables (models (1.2), (2.2) and (3.2)). In order to assess the moderating effect that FBL has on FC, we tested these variables (including control variables) separately, through models (1.3), (2.3) and (3.3). The same happened with the DC variable (models (1.4), (2.4) and (3.4)) and with the FSSR variable (models (1.5), (2.5) and (3.5)). Finally, the full model including all variables was estimated (models (1.6), (2.6) and (3.6)).

Table 3 - Country-level attributes and Family Business Legitimacy on Exports

Dependent Variable: Exports						
Independent Variables	(1.1)	(1.2)	(1.3)	(1.4)	(1.5)	(1.6)
Constant term	-0.31 (0.32)	-4.79*** (0.72)	-5.01*** (0.96)	0.20 (0.69)	-3.09*** (0.70)	-5.96*** (0.84)
Factor Conditions (FC _t)		0.05*** (0.00)	0.05*** (0.01)			0.07*** (0.01)
Demand Conditions (DC _t)		-0.03*** (0.00)		-0.00 (0.00)		-0.03*** (0.01)
Firm Strategy, Structure, and Rivalry (FSSR _t)		0.03*** (0.01)			0.05*** (0.01)	0.02** (0.01)
Family Business Legitimacy (FBL _t)		0.90*** (0.30)	1.11** (0.49)	-0.80** (0.39)	-0.09 (0.35)	1.18*** (0.44)
FC _t * FBL _t			-0.00 (0.03)			-0.09* (0.05)
DC _t * FBL _t				0.07** (0.03)		-0.06* (0.03)
FSSR _t * FBL _t					0.07 (0.02)***	0.10** (0.04)
GDP _t	-0.00*** (0.00)		-0.00*** (0.00)	-0.00 (0.00)	-0.00 (0.00)***	-0.00*** (0.00)
Employment _t	-0.00 (0.00)		0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Market Size _t	-0.00** (0.00)		0.00 (0.00)	-0.00** (0.00)	-0.00 (0.00)	0.00*** (0.00)
Inflation Rate _t	-0.09*** (0.016)		-0.01 (0.02)	-0.06*** (0.02)	-0.01 (0.02)	0.02 (0.01)
Year19 _t	-0.03 (0.11)	-0.04 (0.09)	-0.05 (0.10)	-0.05 (0.11)	-0.03 (0.10)	-0.04 (0.09)
Observations	138	138	138	138	138	138
Number of countries	69	69	69	69	69	69
R-squared	0.2058	0.5619	0.4911	0.2769	0.4482	0.6033

Standard errors reported in parentheses. Significance levels: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 4 - Country-level attributes and Family Business Legitimacy on FDI

Dependent Variable: outward FDI						
Independent Variables	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)	(2.6)
Constant term	-4.95*** (1.13)	-15.22*** (1.88)	-12.25*** (2.23)	-7.01*** (1.70)	-9.74*** (1.13)	-13.17*** (1.84)
Factor Conditions (FC_t)		0.09*** (0.03)	0.10*** (0.03)			0.06* (0.03)
Demand Conditions (DC_t)		0.00 (0.01)		0.05*** (0.02)		0.01 (0.02)
Firm Strategy, Structure, and Rivalry ($FSSR_t$)		0.05** (0.03)			0.10*** (0.02)	0.06*** (0.02)
Family Business Legitimacy (FBL_t)		1.80** (0.80)	-0.01 (1.36)	-1.12 (1.04)	-2.19** (1.04)	-0.45 (1.29)
$FC_t * FBL_t$			0.11 (0.09)			0.01 (0.17)
$DC_t * FBL_t$				0.15 (0.13)		-0.08 (0.11)
$FSSR_t * FBL_t$					0.27*** (0.08)	0.21 (0.16)
GDP_t	0.00 (0.00)		-0.00* (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
$Employment_t$	0.01 (0.02)		0.01 (0.02)	0.01 (0.017)	-0.00 (0.02)	0.00 (0.02)
$Market Size_t$	-0.00* (0.00)		0.00 (0.00)	-0.00* (0.00)	-0.00 (0.00)	0.00 (0.00)
$Inflation Rate_t$	-0.13*** (0.04)		0.07 (0.06)	-0.07* (0.04)	0.09 (0.05)	0.10* (0.06)
$Year19_t$	0.045 (0.33)	-0.05 (0.26)	0.00 (0.28)	0.013 (0.30)	0.05 (0.27)	0.03 (0.27)
Observations	126	126	126	126	126	126
Number of countries	63	63	63	63	63	63
R-squared	0.0860	0.4142	0.4105	0.2776	0.4325	0.4618

Standard errors reported in parentheses. Significance levels: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 5 - Country-level attributes and Family Business Legitimacy on Global (Exports and outward FDI)

Dependent Variable: Global						
Independent Variables	(3.1)	(3.2)	(3.3)	(3.4)	(3.5)	(3.6)
Constant term	-0.34 (0.32)	-4.91*** (0.71)	-5.14*** (0.94)	0.06 (0.67)	-3.22*** (0.68)	-6.07*** (0.81)
Factor Conditions (FC _t)		0.052*** (0.01)	0.05*** (0.01)			0.07*** (0.01)
Demand Conditions (DC _t)		-0.03*** (0.00)		-0.00 (0.01)		-0.03*** (0.01)
Firm Strategy, Structure, and Rivalry (FSSR _t)		0.03*** (0.01)			0.05*** (0.01)	0.02** (0.01)
Family Business Legitimacy (FBL _t)		0.94*** (0.30)	1.15** (0.48)	-0.75* (0.39)	-0.06 (0.34)	1.21*** (0.43)
FC _t * FBL _t			-0.01 (0.02)			-0.08* (0.05)
DC _t * FBL _t				0.07** (0.03)		-0.06** (0.03)
FSSR _t * FBL _t					0.08*** (0.02)	0.10** (0.04)
GDP _t	-0.00** (0.00)		-0.00*** (0.00)	-0.00 (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
Employment _t	-0.00 (0.01)		0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Market Size _t	-0.00** (0.00)		0.00 (0.00)	-0.00** (0.00)	-0.00 (0.00)	0.00*** (0.00)
Inflation Rate _t	-0.08*** (0.02)		-0.01 (0.02)	-0.06*** (0.017)	-0.01 (0.02)	0.02 (0.01)
Year19 _t	-0.01 (0.11)	-0.02 (0.08)	-0.02 (0.09)	-0.03 (0.11)	-0.01 (0.10)	-0.01 (0.08)
Observations	138	138	138	138	138	138
Number of countries	69	69	69	69	69	69
R-squared	0.2067	0.5740	0.5068	0.2804	0.4644	0.6160

Standard errors reported in parentheses. Significance levels: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

We hypothesised that FC, FSSR and FBL positively influence the degree of internationalisation of a country (**H1**, **H3**, **H4**), while we expected DC to negatively influence export and outward FDI flows (**H2**). As can be seen in Tables 3, 4 and 5, there is statistical evidence to support all the hypotheses formulated in this study.

FC variable shows positive and statistically significant values in models (1) and (3) ($p < 0.01$), and in model (2) ($p < 0.10$), demonstrating that there is statistical support for a positive relationship between the quality of a nation's production factors, raw materials and infrastructure and its level of internationalisation. Therefore **H1** is supported.

For the DC variable, models (1) and (3) reveal a negative and statistically significant relationship ($p < 0.01$) between demand conditions and the level of internationalisation of a country. However, we can only state that **H2** is partially supported, since in model (2.6) the DC variable is not statistically significant, being positive and statistically significant only in (2.4), for $p < 0.01$.

Regarding the FSSR variable, model (2) shows that it is statistically significant for $p < 0.01$, while models (1) and (3) show that this relationship is only significant when $p < 0.05$. Thus, **H3** is supported, allowing us to state that a nation with better conditions for the creation, organisation and management of companies reveals a higher level of internationalisation, especially in outward FDI flows.

Lastly, the FBL variable proves to be statistically significant for $p < 0.01$ in models (1) and (3). Consequently, **H4** is partially supported, as the FBL variable does not show a statistically significant relationship with FDI, evaluated through model (2.6), being only positive and statistically significant in model (2.2), for $p < 0.05$.

Hypothesis **H5a** is rejected, since the moderating effect of FBL on FC does not verify statistical significance in practically all the estimated models, apart from models (1.6) and (2.6), which reveal a negative and statistically significant relationship $p < 0.10$. As for hypothesis **H5b**, it is partially supported, since although it does not reveal statistical significance in the full models, it shows a positive and statistically significant moderation effect of FBL on the relationship between DC and internationalisation (Export and Global) in models (1.4) and (3.4), when $p < 0.05$. On the other hand, hypothesis **H5c** is supported as it shows a positive and statistically significant moderation effect of FBL on the relationship between FSSR and internationalisation (all measures) in models (1.5), (2.5) and (3.5) for $p < 0.01$ and in models (1.6) and (3.6), for $p < 0.05$.

4.2 Discussion of Results

This study seeks to answer two research questions: “How do the attributes of a nation influence its degree of internationalisation?” and “What is the relevance of family businesses legitimacy in the attributes of the nation and its degree of internationalisation?”. The results presented above provide statistical evidence that a nation's attributes explain, in part, the pattern of its export and outward FDI flows, and that the family business legitimacy influences both the

country-level attributes and the degree of internationalisation of the nation. From a more analytical perspective, the variables included in the models explain about 60.33% of the variations in export flows, approximately 46.18% of the variations in outward FDI flows and nearly 61.60% of the variations in both (when export and outward FDI flows are assessed together).

Although it is difficult to identify the proportion of family and non-family businesses that are involved in export and outward FDI flows, it is possible to draw conclusions about their variation when family businesses are predominant in a given country. It is according to this line of thought that our discussion of results is developed.

Initially scrutinising the conclusions drawn with regard to factor conditions, our results reveal that the higher the quality of productive factors and the better the access to raw materials, the higher the country's level of internationalisation. This means that our study reinforces the arguments of Adam Smith, David Ricardo, Heckscher-Ohlin (Appleyard & Field JR., 2014; Heckscher, 1935), Dollar & Kraay (2003) and Porter (1990), in stating that the origin of international competitive advantage lies in country-level differences in production.

As regards demand conditions, our findings confirm the arguments of Murmann et al. (2015) and Yang et al. (2007) and contradict the argument of Porter (1990). Since this attribute was calculated through the 10th and 12th Pillars, we can conclude that the larger the domestic market and the greater the sophistication of the consumers, the lower the country's export flows. This negative relationship may be due to the fact that a larger market does not have such a limited and widespread demand and therefore companies do not perceive as much pressure to expand and diversify their activities. Another possible explanation is rooted in consumer sophistication, since, according to the theory of Barnes & McTavish (1983), home-country demand tends to be more satisfied with their purchases and is more accepting of innovations and product changes, providing reasons for the company to maintain and test its innovations within the country.

Furthermore, our findings confirm that the conditions of nations that influence the creation, organisation and management of firms, as well as those that promote the competitiveness of the domestic market, show a positive relationship with export and outward FDI flows, confirming the arguments of Cuervo-Cazurra (2006), Gaur et al. (2018), Ma et al. (2016), Porter (1990) and Trottmann (2018).

Moreover, our analysis finds that having a business structure mostly composed of family businesses brings a positive effect on the country's export flows. Therefore, our study reinforces the assumptions of Bannò & Sgobbi (2016), Carr & Bateman (2009), Hanley et al. (2020), Kao & Kuo (2017), Kraus et al. (2014) and Zahra (2003), that family has a positive effect on the internationalisation process of companies and contradicts the research of Fernández & Nieto (2006), Graves & Thomas (2006) and Cerrato & Piva (2012).

These results also indicate that the prevalence and prize of family businesses in a country leads to a strengthening of the FSSR attribute, which brings us to the conclusion that supporting and investing in family businesses benefits the competitiveness, dynamism and innovation capacity of the domestic market, which in turn increases export and outward FDI flows, corroborating the study by Carney et al. (2017).

The findings outlined above provide significant evidence that a nation's attributes support its level of internationalisation, especially the FBL attribute. That is to say that countries that accept and value family businesses not only show higher export flows, but also higher home-level competitiveness, more flexibility in labour and improvements in workers' rights, a more stable national financial system, greater entrepreneurial culture and a more dynamic business environment, which indirectly also lead to increased outward FDI flows.

Therefore, the main conclusion of our study is that encouraging the creation of family businesses, and supporting them in the long run, promotes the opening of the market to the rest of the world and, as mentioned before, an open economy tends to be more developed (Azid, 2015). Family businesses then become the development driver of many economies.

5 Conclusion

This study makes two main contributions to the literature. First, it links the existing literature on theories of International Trade with that of International Business. Second, it gives a new perspective to the Family Business literature by drawing conclusions on the advantages that family businesses bring to a country.

The degree of internationalisation of a country was assessed through three measures (Exports, outward FDI and Global) and, for each of these measures, six distinct models were run, allowing conclusions to be drawn about the effect that nation attributes have on a country's level of internationalisation and the moderating effect that the FBL variable has on the other attributes.

Hence, the present study strengthens Porter's argument that the attributes of a nation, namely factor conditions and the strategy, structure and rivalry, positively influence its level of internationalisation. For this reason, economies with better Infrastructures and Institutions, with more qualified labour and ICT adoption, which promotes an equitable playing field for all companies, trade openness and business dynamism, tend to have higher levels of internationalisation.

Nevertheless, the keys findings of this study is that family businesses positively influence a country's export flows, and reveals a moderating effect on the quality of the DC and FSSR attributes, bringing these conclusions into play from a practical perspective. In other words, the results of the present study show that supporting family businesses directly and indirectly contributes to an increase in the level of internationalisation of the country, which in turn leads to greater economic development.

5.1 *Practical Implications*

As we conclude that family businesses can be considered the development driver of many economies, it is important to evaluate the practical solutions that emerged from this study and that could be implemented by national leaders.

Thus, once we have assessed the FC variable through the 1st, 2nd, 3rd, 5th and 6th Pillars of GCI 4.0 (Schwab, 2019), we conclude that if a country intends to increase its degree of openness to the rest of the world, its public policies should favour, among others, security, property rights, social capital, transparency and ethics, public sector performance and corporate governance (acting

directly on the quality of its Institutions). The same conclusion can be drawn with public policies aimed at improving the country's transport and utility infrastructures, at fostering the adoption of ICTs, at increasing life expectancy (HALE indicator) and the number of years of school attendance, as well as the quality of education.

However, in the case of larger and more sophisticated markets, to increase the country's export flows, *ceteris paribus*, restrictive measures that discourage innovation, research and development and the sophistication of buyers must be implemented.

FSSR variable was measured through 7th, 8th, 9th and 11th Pillars, which allows us to state that if a country is looking to increase its export flows and outward FDI it must set public policies that promote a more equal and competitive market, more flexibility in labour and workers' rights, financial stability, an entrepreneurial culture and dynamism in business.

Nevertheless, the prevalence and acceptance of family businesses should be more carefully analysed. We have already proved that the FBL variable shows a direct effect on a country's export flows, and a moderating effect on the DC and FSSR variables. Thus, it is intuitive to assume that the FBL variable is the core of our study. However, since demand conditions do not directly influence outward FDI flows, this study does not present practical implications for the moderating effect that exists between the FSSR variable and outward FDI.

As previously mentioned, we assessed the FBL variable through FBLI of Berrone et al. (2020), an index built based on the prevalence of family businesses and the strategic and performance differences that they show relative to non-family businesses. Of the five components that form the FBLI, network-based relations is the key factor for the prevalence of family businesses (Berrone et al., 2020) and it is in this dimension that country leaders can act to increase the country's export and outward FDI flows. As this dimension is associated with business relations within the network, countries should act as catalysts in the process of transformation social capital into equity capital by promoting a cycle of mutual benefit among family businesses. For example, a country can apply policies that reduce taxes to family businesses that have a business network mostly composed of family businesses. In this way, there might be an incentive for the creation of family businesses as well as a long-term support, bringing positive consequences to the level of internationalisation of that country.

5.2 Limitations and Future Research

Although this study contributes to filling certain gaps in the literature, it exhibits some limitations. The number of countries used in the sample is restricted and the time period of the analysis is short (panel data over two time periods).

The focus on drawing conclusions at the country level narrows the scope for discussion in terms of the international strategies that family businesses can adopt. This is because family businesses may choose other modes of internationalisation (Carney et al., 2017) that are not covered in this study. Therefore, future research in this field is needed.

The measurement of nation attributes is also a limitation as we resort to a *proxy*, in the case of the FBL variable, and to weighted values from the Global Competitiveness Index 4.0, in the case of the remaining ones (FC, DC and FSSR). Thus, we suggest that future research on this topic use more rigorous values.

Another limitation that can be pointed out to this study is that it does not specifically measure how many companies involved in export and FDI activities are considered family businesses, only assessing the relationship between a higher value in the FBLI and the performance of export and outward FDI flows. This was due to the inexistence of data regarding the percentage of family business in each country. Nevertheless, future research could be overcome by contruting a different *proxy* for that measure.

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Appendices

Table 6 - List of countries included in models (1), (2), and (3)

List of countries included in models (1) and (3)	List of countries included in model (2)
Argentina	Argentina
Australia	Australia
Austria	Bangladesh
Bangladesh	Brazil
Belgium	Bulgaria
Brazil	Canada
Bulgaria	Cape Verde
Canada	Chile
Cape Verde	China
Chile	Colombia
China	Croatia
Colombia	Cyprus
Croatia	Czech Republic
Cyprus	Denmark
Czech Republic	Egypt, Arab Rep.
Denmark	Estonia
Egypt, Arab Rep.	Finland
Estonia	France
Finland	Germany
France	Greece
Germany	Hong Kong
Greece	Hungary
Hong Kong	India
Hungary	Indonesia
India	Ireland
Indonesia	Israel
Ireland	Italy
Israel	Japan
Italy	Jordan
Japan	Kenya
Jordan	Latvia
Kenya	Lithuania
Latvia	Luxembourg
Lithuania	Mauritius
Luxembourg	Mexico

List of countries included in models (1) and (3)	List of countries included in model (2)
Malawi	Morocco
Malta	Namibia
Mauritius	Netherlands
Mexico	New Zealand
Morocco	Nigeria
Mozambique	Norway
Namibia	Oman
Netherlands	Philippines
New Zealand	Poland
Nigeria	Portugal
Norway	Qatar
Oman	Romania
Pakistan	Saudi Arabia
Philippines	Singapore
Poland	Slovak Republic
Portugal	Slovenia
Qatar	South Africa
Romania	Spain
Saudi Arabia	Sri Lanka
Singapore	Sweden
Slovak Republic	Switzerland
Slovenia	Thailand
South Africa	Tunisia
Spain	Turkey
Sri Lanka	Uganda
Sweden	United Kingdom
Switzerland	United States
Thailand	Zambia
Tunisia	
Turkey	
Uganda	
United Kingdom	
United States	
Zambia	

Table 7 - Data used in models (1), (2), and (3)

CountryName	Year	Exp	FDI	Global	FC	DC	FSSR	FBLI	FC*FBLI	DC*FBLI	FSSR*FBLI	GDP PPP	MktSize	Emp	Inflation	Year19
Argentina	2019	-1.66	-5.68	-1.64	66.46	55.15	50.57	0.53	0.19	0.22	0.82	1035400864701.41	44938712.00	55.55	0.00	1
Argentina	2018	-1.83	-5.66	-1.81	63.76	54.55	50.50	0.53	0.39	0.17	0.93	1037336718967.02	44494502.00	55.73	0.00	0
Australia	2019	-1.27	-4.98	-1.24	80.24	71.05	75.47	0.23	-4.23	-4.23	-4.84	1353982699741.71	25364307.00	62.53	1.61	1
Australia	2018	-1.34	-7.27	-1.34	80.90	71.05	74.77	0.23	-4.48	-3.95	-4.77	1283872898972.17	24982688.00	62.17	1.91	0
Austria	2019	-0.46	n.a.	-0.47	80.52	69.55	69.43	0.35	-2.95	-1.18	-2.41	536334728214.10	8877067.00	58.05	1.53	1
Austria	2018	-0.48	n.a.	-0.57	80.16	69.30	68.90	0.35	-2.86	-1.19	-2.31	520271380624.12	8840521.00	57.79	2.00	0
Bahrain	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1
Bahrain	2018	-0.15	-3.21	-0.10	71.68	n.a.	n.a.	n.a.	0.66	-1.55	-1.05	74317830753.33	1569439.00	72.06	2.09	0
Bangladesh	2019	-1.90	-9.48	-1.90	50.86	49.05	50.10	0.94	-6.06	-1.18	-5.38	809376043816.39	163046161.00	56.62	5.59	1
Bangladesh	2018	-1.82	-9.57	-1.82	50.98	48.55	50.17	0.94	-6.02	-1.20	-5.43	734108282366.19	161356039.00	56.48	5.54	0
Belgium	2019	-0.04	n.a.	-0.10	79.14	70.35	68.63	0.45	-1.58	-0.81	-1.59	647109430311.20	11484055.00	51.02	1.44	1
Belgium	2018	-0.03	n.a.	-0.09	79.20	71.15	69.03	0.45	-1.59	-0.91	-1.62	620835125597.85	11427054.00	50.51	2.05	0
Botswana	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1
Botswana	2018	-0.90	-5.43	-0.89	51.84	n.a.	n.a.	n.a.	-2.13	-1.85	-1.39	40717999938.91	2254126.00	58.42	3.24	0
Brazil	2019	-1.86	-4.39	-1.79	61.50	65.10	54.67	0.74	-1.01	0.39	-0.71	3229055074104.07	211049527.00	56.76	3.73	1
Brazil	2018	-1.88	-6.84	-1.87	61.04	64.35	54.37	0.74	-1.07	0.56	-1.14	3131945876397.82	209469333.00	56.15	3.66	0
Bulgaria	2019	-0.42	-4.55	-0.40	69.42	49.95	59.97	0.68	0.03	-0.41	-0.32	176571022082.44	6975761.00	54.35	3.10	1
Bulgaria	2018	-0.38	-4.30	-0.37	67.62	49.25	58.97	0.68	-0.10	-0.38	-0.44	166030942578.74	7025037.00	52.57	2.81	0
Cameroon	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1
Cameroon	2018	-1.64	-5.88	-1.62	38.70	n.a.	n.a.	n.a.	-8.01	-3.22	-4.76	93081560370.17	25216237.00	73.64	1.07	0
Canada	2019	-0.96	-3.13	-0.86	80.32	75.45	75.37	0.28	-3.69	-3.13	-5.25	1942196366113.28	37589262.00	61.86	1.95	1
Canada	2018	-0.97	-3.32	-0.88	80.64	75.85	76.00	0.28	-3.79	-3.28	-5.36	1887700039980.41	37057765.00	61.45	2.27	0
Cape Verde	2019	-0.65	-4.37	-0.62	56.72	21.15	56.67	0.90	-3.61	-7.93	-4.38	4118579527.67	549935.00	53.10	1.11	1
Cape Verde	2018	-0.68	-4.86	-0.66	56.64	19.25	55.90	0.90	-3.63	-7.60	-5.00	3823420547.93	543767.00	52.95	1.26	0
Chile	2019	-1.15	-3.51	-1.06	72.56	52.85	70.93	0.64	0.12	0.17	0.04	511747890787.73	18952038.00	57.81	2.56	1
Chile	2018	-1.15	-6.24	-1.15	72.62	52.00	70.57	0.64	0.13	0.16	0.01	477832721931.34	18729160.00	57.97	2.43	0
China	2019	-1.61	-4.99	-1.57	73.02	82.40	63.93	0.60	-0.02	-0.10	-0.02	23523357663257.70	1397715000.00	65.10	2.90	1

RELEVANCE OF FAMILY BUSINESS LEGITIMACY AND PORTER'S DIAMOND MODEL IN INTERNATIONALISATION.

CountryName	Year	Exp	FDI	Global	FC	DC	FSSR	FBLI	FC*FBLI	DC*FBLI	FSSR*FBLI	GDP PPP	MktSize	Emp	Inflation	Year19
China	2018	-1.57	-4.58	-1.52	71.06	82.20	62.87	0.60	-0.01	-0.10	-0.02	21746511395510.00	1392730000.00	65.76	2.07	0
Colombia	2019	-1.70	-4.61	-1.64	63.80	51.55	58.83	0.60	0.03	0.01	0.03	806057599777.78	50339443.00	61.05	3.53	1
Colombia	2018	-1.71	-4.18	-1.63	62.16	51.00	58.57	0.60	0.04	0.00	0.04	747681231031.76	49661056.00	62.42	3.24	0
Cote d'Ivoire	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1
Cote d'Ivoire	2018	-1.46	-5.99	-1.45	41.98	n.a.	n.a.	n.a.	-6.60	-2.47	-3.89	129259297438.28	25069229.00	52.01	0.36	0
Croatia	2019	-0.59	-5.59	-0.58	67.98	43.90	57.03	0.57	0.04	0.32	0.34	126624503659.65	4067500.00	48.07	0.77	1
Croatia	2018	-0.62	-5.25	-0.61	67.62	43.60	57.03	0.57	0.05	0.29	0.35	120409799859.47	4087843.00	47.03	1.50	0
Cyprus	2019	0.15	-0.20	0.68	73.80	43.00	61.80	0.62	0.07	-0.15	-0.04	37705562489.01	1198575.00	59.27	0.25	1
Cyprus	2018	0.52	n.a.	0.18	74.78	41.90	61.17	0.62	0.08	-0.14	-0.06	36328662360.32	1189265.00	57.94	1.44	0
Czech Republic	2019	-0.22	-3.61	-0.18	74.32	60.85	62.73	0.59	-0.08	0.00	-0.03	472624546308.91	10669709.00	59.29	2.85	1
Czech Republic	2018	-0.18	-3.70	-0.16	74.24	60.95	63.63	0.59	-0.08	-0.03	-0.04	450976470083.06	10629928.00	59.41	2.15	0
Denmark	2019	-0.44	-7.34	-0.44	85.22	68.05	77.30	0.03	-9.35	-1.53	-10.50	361273458075.45	5818553.00	59.09	0.76	1
Denmark	2018	-0.44	-4.00	-0.41	84.56	67.50	76.90	0.03	-8.97	-1.45	-10.08	343424798762.21	5793636.00	58.46	0.81	0
Egypt, Arab Rep.	2019	-1.71	-6.62	-1.71	56.84	56.60	55.43	0.90	-3.58	0.42	-2.72	1233147750539.73	100388073.00	40.47	0.00	1
Egypt, Arab Rep.	2018	-1.56	-6.65	-1.56	56.18	55.25	48.97	0.90	-3.77	-0.07	-4.25	1145967618744.53	98423595.00	40.52	14.40	0
Estonia	2019	-0.24	-2.82	-0.17	77.74	47.45	65.80	0.55	-0.49	0.46	-0.13	53045342274.74	1326590.00	60.68	2.28	1
Estonia	2018	-0.23	n.a.	-0.24	77.00	47.40	66.67	0.55	-0.44	0.40	-0.12	49538780935.94	1321977.00	60.41	3.44	0
Finland	2019	-0.74	-3.64	-0.68	84.74	66.80	75.83	0.17	-6.86	-0.57	-7.28	293523845548.45	5520314.00	55.31	1.02	1
Finland	2018	-0.78	-4.31	-0.75	84.72	66.85	75.83	0.17	-6.85	-0.62	-7.29	283047597358.78	5515525.00	54.94	1.08	0
France	2019	-0.90	-3.89	-0.85	80.90	79.40	70.33	0.27	-4.00	-3.75	-4.12	3419582213776.40	67059887.00	50.33	1.11	1
France	2018	-0.90	-2.99	-0.78	80.48	78.80	68.97	0.27	-3.86	-3.78	-3.49	3223484993309.12	66965912.00	50.31	1.85	0
Germany	2019	-0.62	-3.35	-0.56	81.82	86.40	73.37	0.27	-4.31	-5.49	-5.87	4782655118573.17	83132799.00	59.32	1.45	1
Germany	2018	-0.61	-3.10	-0.53	82.58	86.65	75.43	0.27	-4.56	-6.09	-6.30	4699853812633.71	82905782.00	58.77	1.73	0
Ghana	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1
Ghana	2018	-1.04	-6.70	-1.04	51.80	n.a.	n.a.	n.a.	-4.72	-1.77	-3.76	158390056348.40	29767108.00	65.07	7.81	0
Greece	2019	-0.87	-5.81	-0.86	71.38	52.35	51.83	0.62	0.03	-0.06	-0.16	348348609719.97	10716322.00	43.19	0.25	1
Greece	2018	-0.90	-6.04	-0.89	70.34	52.00	52.63	0.62	0.02	-0.04	-0.16	337732380975.02	10732882.00	42.04	0.63	0

RELEVANCE OF FAMILY BUSINESS LEGITIMACY AND PORTER'S DIAMOND MODEL IN INTERNATIONALISATION.

CountryName	Year	Exp	FDI	Global	FC	DC	FSSR	FBLI	FC*FBLI	DC*FBLI	FSSR*FBLI	GDP PPP	MktSize	Emp	Inflation	Year19
Hong Kong	2019	0.86	-2.12	0.91	87.72	67.40	82.93	0.50	-1.98	-1.66	-1.52	469182169655.82	7507400.00	58.10	2.86	1
Hong Kong	2018	0.90	-1.57	0.98	87.24	66.50	81.10	0.50	-1.93	-1.51	-1.38	466067937548.30	7451000.00	58.52	2.41	0
Hungary	2019	-0.08	-1.60	0.12	70.04	55.05	57.50	0.69	0.09	-0.27	-0.48	341618949103.42	9769949.00	54.88	3.34	1
Hungary	2018	-0.05	n.a.	-0.66	68.56	54.85	57.33	0.69	-0.04	-0.23	-0.54	320971253488.67	9775564.00	54.46	2.85	0
India	2019	-1.62	-5.39	-1.60	53.60	72.30	57.93	0.78	-2.68	1.98	-0.61	9560219601244.47	1366417754.00	46.74	7.66	1
India	2018	-1.58	-5.47	-1.56	53.62	73.25	59.57	0.78	-2.68	1.93	-0.24	9001762811692.04	1352617328.00	46.79	4.86	0
Indonesia	2019	-1.69	-5.52	-1.66	63.20	60.05	59.97	0.81	-1.18	1.96	-0.98	3338143991973.09	270625568.00	65.54	3.03	1
Indonesia	2018	-1.55	-5.09	-1.52	64.32	59.35	60.07	0.81	-0.95	1.91	-1.05	3117888944584.70	267663435.00	64.47	3.20	0
Ireland	2019	0.47	n.a.	0.21	77.74	65.05	68.57	0.38	-1.98	-0.45	-2.20	443166676664.70	4941444.00	59.36	0.94	1
Ireland	2018	0.41	-1.40	0.56	78.22	65.50	69.83	0.38	-2.08	-0.76	-2.31	422485839265.69	4867316.00	58.78	0.49	0
Israel	2019	-1.11	-3.83	-1.05	78.78	67.00	71.17	0.58	-0.25	0.00	-0.36	388366736725.05	9053300.00	61.28	0.84	1
Israel	2018	-1.09	-4.11	-1.04	78.90	66.60	71.03	0.58	-0.25	0.01	-0.36	368365725610.77	8882800.00	61.52	0.81	0
Italy	2019	-1.03	-4.12	-0.99	75.44	72.40	62.03	0.62	0.09	0.14	0.03	2756951889780.28	60297396.00	44.77	0.61	1
Italy	2018	-1.02	-3.96	-0.97	73.82	72.45	61.67	0.62	0.07	0.15	0.02	2687068696082.25	60421760.00	44.44	1.14	0
Japan	2019	-1.43	-3.02	-1.25	84.88	82.60	75.93	0.63	0.39	0.44	0.38	5504330908893.46	126264931.00	60.87	0.48	1
Japan	2018	-1.39	-3.44	-1.27	84.74	83.00	76.80	0.63	0.39	0.47	0.39	5416841902228.99	126529100.00	60.40	0.98	0
Jordan	2019	-0.91	-6.92	-0.91	66.42	43.80	61.70	0.70	-0.24	-0.80	-0.56	106240192951.32	10101694.00	32.83	0.76	1
Jordan	2018	-0.96	n.a.	-0.96	63.88	43.80	60.03	0.70	-0.48	-0.90	-0.68	102217538539.56	9956011.00	33.02	4.46	0
Kenya	2019	-2.10	-6.15	-2.08	51.08	44.50	56.60	0.91	-5.45	-2.42	-2.37	237712122820.79	52573973.00	72.31	0.00	1
Kenya	2018	-2.01	-6.28	-2.00	50.62	44.35	57.50	0.91	-5.59	-2.20	-2.58	221308938637.09	51393010.00	72.54	4.69	0
Latvia	2019	-0.43	-6.01	-0.43	73.62	43.40	61.00	0.55	-0.26	0.51	0.22	63161816357.25	1912789.00	57.54	2.81	1
Latvia	2018	-0.41	n.a.	-0.42	72.94	43.00	60.03	0.55	-0.22	0.49	0.30	61229095363.26	1927174.00	57.20	2.53	0
Lithuania	2019	-0.22	-4.59	-0.21	74.70	48.80	61.13	0.56	-0.26	0.33	0.10	111519257534.24	2786844.00	58.11	2.33	1
Lithuania	2018	-0.17	-3.94	-0.15	72.70	48.75	59.93	0.56	-0.17	0.31	0.16	105039585762.61	2801543.00	57.96	2.70	0
Luxembourg	2019	1.68	-3.87	1.68	82.22	59.20	76.30	0.51	-1.26	0.18	-1.13	77233180568.51	619896.00	56.57	1.74	1
Luxembourg	2018	1.69	-1.81	1.72	81.24	59.10	76.50	0.51	-1.17	0.10	-1.10	73152143777.70	607950.00	55.89	1.53	0
Malawi	2019	-1.88	n.a.	-1.88	38.34	30.55	52.27	0.84	-7.19	-4.62	-3.73	20614924168.70	18628747.00	72.11	9.37	1
Malawi	2018	-1.81	n.a.	-1.82	37.32	31.40	51.70	0.84	-7.43	-4.47	-3.89	19375651227.72	18143315.00	72.31	12.42	0
Malaysia	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1

RELEVANCE OF FAMILY BUSINESS LEGITIMACY AND PORTER'S DIAMOND MODEL IN INTERNATIONALISATION.

CountryName	Year	Exp	FDI	Global	FC	DC	FSSR	FBLI	FC*FBLI	DC*FBLI	FSSR*FBLI	GDP PPP	MktSize	Emp	Inflation	Year19
Malaysia	2018	-0.32	-4.13	-0.30	74.50	n.a.	n.a.	n.a.	1.63	2.23	2.60	890019147473.50	31528585.00	62.64	0.88	0
Malta	2019	0.75	n.a.	0.51	75.44	43.85	66.10	0.57	-0.23	0.44	0.00	23915323452.32	502653.00	55.89	1.64	1
Malta	2018	0.80	n.a.	0.55	75.32	43.85	67.17	0.57	-0.22	0.41	-0.02	22067356295.98	484630.00	54.90	1.16	0
Mauritius	2019	-0.03	-5.48	-0.02	67.94	37.65	66.90	0.82	-0.22	-2.12	-0.42	30228158502.40	1265711.00	54.20	0.41	1
Mauritius	2018	0.01	-5.14	0.01	66.32	37.60	67.20	0.82	-0.57	-2.04	-0.40	28784540896.23	1265303.00	54.50	3.22	0
Mexico	2019	-0.91	-5.33	-0.90	63.20	62.20	58.43	0.83	-1.30	1.91	-1.19	2671945581126.25	127575529.00	59.28	3.64	1
Mexico	2018	-0.91	-4.60	-0.88	62.88	61.65	57.57	0.83	-1.37	1.87	-1.39	2567829834020.14	126190788.00	58.71	4.90	0
Morocco	2019	-0.97	-4.74	-0.95	59.94	47.80	58.33	0.85	-2.21	-0.61	-2.10	291655207460.18	36471769.00	41.28	0.20	1
Morocco	2018	-0.99	-5.02	-0.97	58.48	47.00	57.17	0.85	-2.57	-0.77	-2.69	279170566828.94	36029138.00	41.30	1.91	0
Mozambique	2019	-0.93	n.a.	-0.93	32.20	34.25	46.10	0.92	-11.57	-5.30	-6.48	40632691531.30	30366036.00	75.58	2.78	1
Mozambique	2018	-0.86	n.a.	-0.86	34.14	33.70	47.20	0.92	-10.96	-4.97	-6.00	38968768509.10	29495962.00	75.72	3.91	0
Namibia	2019	-0.94	-7.23	-0.93	54.28	36.15	62.13	0.77	-2.42	-2.56	-1.18	25104076732.12	2494530.00	47.65	3.72	1
Namibia	2018	-0.93	-4.93	-0.91	51.68	35.15	61.27	0.77	-2.85	-2.54	-1.44	24908340619.18	2448255.00	47.28	4.29	0
Netherlands	2019	0.19	-2.45	0.26	85.60	75.30	76.47	0.21	-6.57	-4.49	-6.74	1062244270545.87	17332850.00	62.08	2.63	1
Netherlands	2018	0.21	n.a.	-0.09	85.18	75.70	76.97	0.21	-6.41	-4.89	-6.74	1029216133699.28	17231624.00	61.39	1.70	0
New Zealand	2019	-1.19	n.a.	-1.21	80.98	57.40	75.13	0.00	-7.27	-1.43	-6.29	223143901288.46	4917000.00	66.77	1.62	1
New Zealand	2018	-1.18	-5.70	-1.17	82.10	57.60	76.00	0.00	-7.94	-1.76	-6.67	216201573923.92	4841000.00	67.00	1.60	0
Nigeria	2019	-1.82	-5.70	-1.80	40.36	51.65	52.00	1.00	-11.29	0.24	-6.23	1077719232146.02	200963599.00	51.10	11.40	1
Nigeria	2018	-1.77	-5.66	-1.75	40.26	51.10	51.67	1.00	-11.33	0.34	-5.80	1034346388429.17	195874740.00	50.39	12.09	0
Norway	2019	-0.73	-3.96	-0.69	82.82	64.70	72.07	0.10	-7.00	-0.21	-6.57	374384211512.27	5347896.00	61.71	2.17	1
Norway	2018	-0.71	-3.79	-0.67	83.06	64.55	72.13	0.10	-7.12	-0.66	-6.34	379505788848.19	5311916.00	61.50	2.76	0
Oman	2019	-0.54	-4.81	-0.53	70.62	48.55	60.90	0.78	0.29	-0.22	-1.08	141824295073.03	4974986.00	68.16	0.13	1
Oman	2018	-0.51	-4.71	-0.50	71.06	44.20	60.50	0.78	0.36	-0.28	-1.48	141453662150.41	4829483.00	67.75	0.88	0
Pakistan	2019	-2.19	n.a.	-2.19	45.12	53.50	50.60	0.89	-6.79	-0.68	-3.05	1060747879309.42	216565318.00	50.42	10.58	1
Pakistan	2018	-2.30	n.a.	-2.30	45.40	52.80	50.57	0.89	-6.71	-0.41	-3.59	1030352709282.10	212215030.00	50.30	5.08	0
Peru	2019	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1
Peru	2018	-1.34	-9.36	-1.34	61.68	n.a.	n.a.	n.a.	-1.57	-0.04	-2.28	418859489005.24	31989256.00	75.10	1.32	0
Philippines	2019	-1.25	-4.73	-1.22	57.36	54.50	63.67	0.82	-2.49	0.79	-0.61	1005742409808.28	108116615.00	58.69	2.48	1
Philippines	2018	-1.22	-4.43	-1.18	58.60	53.70	63.10	0.82	-2.23	0.60	-0.69	930383012511.25	106651922.00	58.18	5.21	0

RELEVANCE OF FAMILY BUSINESS LEGITIMACY AND PORTER'S DIAMOND MODEL IN INTERNATIONALISATION.

CountryName	Year	Exp	FDI	Global	FC	DC	FSSR	FBLI	FC*FBLI	DC*FBLI	FSSR*FBLI	GDP PPP	MktSize	Emp	Inflation	Year19
Poland	2019	-0.55	-4.82	-0.53	71.78	61.90	60.70	0.72	0.32	0.61	-0.36	1335253563807.69	37970874.00	55.03	2.23	1
Poland	2018	-0.55	-5.53	-0.54	69.98	61.05	61.47	0.72	0.11	0.75	-0.43	1252700632091.10	37974750.00	54.82	1.81	0
Portugal	2019	-0.74	n.a.	-0.74	76.70	57.10	64.30	0.57	-0.27	0.02	-0.07	389400342845.88	10269417.00	55.44	0.34	1
Portugal	2018	-0.73	-5.11	-0.72	75.90	56.60	65.00	0.57	-0.25	-0.01	-0.07	370569124074.41	10283822.00	55.05	0.99	0
Qatar	2019	-0.60	-3.72	-0.55	77.54	55.20	70.50	0.65	0.38	0.13	0.14	266295288558.69	2832067.00	86.71	-0.67	1
Qatar	2018	-0.55	-3.99	-0.52	76.88	55.35	65.00	0.65	0.35	0.06	-0.01	259214078410.55	2781677.00	86.61	0.26	0
Romania	2019	-0.84	-4.87	-0.83	68.30	53.75	58.00	0.82	-0.15	-0.09	-1.48	645345921666.06	19356544.00	52.97	3.83	1
Romania	2018	-0.81	-5.08	-0.80	67.60	52.15	56.63	0.82	-0.30	0.06	-1.93	587567206682.19	19472545.00	52.75	4.63	0
Saudi Arabia	2019	-0.95	-4.07	-0.91	73.62	63.45	64.07	0.65	0.21	0.44	-0.19	1680540365363.90	34268528.00	52.45	-2.09	1
Saudi Arabia	2018	-0.86	-3.71	-0.80	70.68	61.85	60.60	0.65	0.08	0.39	-0.34	1643081118343.75	33699947.00	52.15	2.46	0
Singapore	2019	0.72	-2.41	0.76	88.34	73.35	84.57	0.79	3.57	2.88	3.46	579762512267.44	5703569.00	68.33	0.57	1
Singapore	2018	0.73	-2.53	0.77	87.52	73.05	83.57	0.79	3.42	2.85	3.27	564578205986.88	5638676.00	68.06	0.44	0
Slovak Republic	2019	-0.04	-7.86	-0.04	71.26	52.25	59.27	0.65	0.10	-0.24	-0.16	182798095779.67	5454073.00	56.24	2.66	1
Slovak Republic	2018	-0.01	-4.70	0.00	70.88	52.15	59.63	0.65	0.08	-0.20	-0.15	177310954567.61	5446771.00	55.89	2.51	0
Slovenia	2019	-0.13	-4.12	-0.11	75.08	53.35	63.40	0.66	0.33	-0.30	0.11	88594050469.77	2087946.00	55.41	1.63	1
Slovenia	2018	-0.12	-4.79	-0.11	74.14	52.85	62.93	0.66	0.28	-0.29	0.08	83253931919.34	2073894.00	55.87	1.74	0
South Africa	2019	-1.14	-4.73	-1.11	57.26	56.90	66.30	0.66	-0.64	0.05	0.04	763258133431.53	58558270.00	40.12	4.12	1
South Africa	2018	-1.14	-4.52	-1.11	54.02	56.35	66.10	0.66	-0.82	0.06	0.01	747577752588.04	57779622.00	40.93	4.50	0
Spain	2019	-0.92	-3.99	-0.88	81.04	70.65	66.53	0.39	-2.60	-1.78	-1.18	2047649049272.66	47076781.00	49.56	0.70	1
Spain	2018	-0.92	-3.59	-0.85	79.62	69.80	65.53	0.39	-2.29	-1.86	-0.84	1965751512787.07	46797754.00	48.95	1.68	0
Sri Lanka	2019	-1.45	-6.99	-1.45	62.40	46.65	50.63	0.73	-0.82	-1.24	-1.39	297760017947.48	21803000.00	50.26	3.53	1
Sri Lanka	2018	-1.46	-7.17	-1.46	60.28	45.80	50.77	0.73	-1.08	-1.16	-1.52	285567008650.10	21670000.00	50.65	2.14	0
Sweden	2019	-0.55	-3.04	-0.47	85.46	72.25	74.57	0.04	-9.32	-2.89	-9.56	582487212631.49	10285453.00	60.03	1.78	1
Sweden	2018	-0.58	-3.99	-0.55	85.26	72.45	76.30	0.04	-9.21	-3.51	-10.10	562113113321.37	10175214.00	60.29	1.95	0
Switzerland	2019	-0.13	-3.87	-0.10	87.18	73.70	77.67	0.19	-7.56	-1.77	-7.65	620612246221.24	8574832.00	65.08	0.36	1
Switzerland	2018	-0.10	-2.91	-0.04	86.90	74.00	78.87	0.19	-7.44	-2.33	-7.92	603476795892.95	8514329.00	65.16	0.94	0
Thailand	2019	-0.48	-3.98	-0.45	66.78	59.70	67.33	0.81	-0.45	0.77	0.83	1342165126131.37	69625582.00	66.26	0.71	1
Thailand	2018	-0.41	-3.37	-0.36	66.34	58.50	66.97	0.81	-0.54	0.70	0.63	1286308886232.29	69428524.00	67.07	1.06	0

RELEVANCE OF FAMILY BUSINESS LEGITIMACY AND PORTER'S DIAMOND MODEL IN INTERNATIONALISATION.

CountryName	Year	Exp	FDI	Global	FC	DC	FSSR	FBLI	FC*FBLI	DC*FBLI	FSSR*FBLI	GDP PPP	MktSize	Emp	Inflation	Year19
Tunisia	2019	-0.68	-7.48	-0.68	62.30	43.05	51.50	0.82	-1.43	-1.67	-2.93	131350067001.89	11694719.00	39.41	6.72	1
Tunisia	2018	-0.69	-7.06	-0.69	60.84	42.70	51.40	0.82	-1.75	-1.83	-2.96	127517842221.10	11565204.00	39.40	7.31	0
Turkey	2019	-1.15	-5.55	-1.08	66.78	61.75	56.07	0.89	-0.63	1.65	-2.19	2347132754780.75	83429615.00	45.54	15.18	1
Turkey	2018	-1.15	-5.35	-1.14	65.14	61.25	55.43	0.89	-1.09	1.74	-2.56	2373436679210.81	82319724.00	47.16	16.33	0
Uganda	2019	-1.72	-11.52	-1.72	44.12	38.45	53.13	0.89	-7.07	-3.55	-3.70	101123516709.13	44269594.00	68.84	2.87	1
Uganda	2018	-1.75	-11.51	-1.75	40.26	38.10	52.33	0.89	-8.17	-3.75	-3.89	92878344808.28	42723139.00	69.05	2.62	0
United Kingdom	2019	-0.89	n.a.	-0.95	81.96	80.00	75.90	0.28	-4.22	-4.06	-5.70	3337149094741.60	66834405.00	60.61	1.74	1
United Kingdom	2018	-0.90	-3.93	-0.85	82.20	80.45	77.67	0.28	-4.30	-4.71	-6.04	3236006332256.31	66460344.00	60.24	2.29	0
United States	2019	-1.76	-4.73	-1.71	79.78	91.80	79.20	0.33	-2.97	-6.42	-6.13	2143322600000.10	328239523.00	60.27	1.81	1
United States	2018	-1.73	n.a.	-1.77	81.62	92.85	82.60	0.33	-3.48	-7.10	-6.80	20580159776000.10	326687501.00	59.89	2.44	0
Zambia	2019	-1.02	-3.50	-0.94	43.52	37.00	48.70	0.80	-4.95	-2.67	-3.20	64728818157.00	17861030.00	65.70	9.15	1
Zambia	2018	-0.99	-6.39	-0.99	43.28	36.45	49.37	0.80	-5.00	-2.53	-3.20	62593304576.31	17351822.00	65.70	7.49	0