

ISLAND HOPPING? CEO CHARACTERISTICS OF ISLAND BASED FIRMS AND INTERNATIONAL ENTREPRENEURSHIP

This paper aims to explore the relationship between CEO characteristics and International Entrepreneurship of Island-based Firms. Island-based firms (IBF) are often limited by small scale national markets, which determine International Entrepreneurship behavior. These added external factors give CEO's additional pressure in decision making, giving rise to the question: which CEO characteristics determine IE of Island Based Firms? As a result, a novel database has been collected with 164 listed IBF, over the 2009-2018 period rendering 1544 observations. As its primary contribution, our study finds that CEO's with academic backgrounds in business /economics/finance and CEO tenure are negatively associated with International Entrepreneurship, whereas international exposure and academic achievement are positively associated with IE.

**Keywords: Multinational Firms, Executives, International Business Administration,
JEL Codes: F13, M12, M16**

INTRODUCTION

Small Island Nations (SIN), where firm behavior tends to be quite conservative and limited along colonial lines, is often overlooked in organizational studies. Briguglio (1995) indicates that insularity, as a vulnerability for Small Island Developing States, as these states are more sensitive to (and dependent of) foreign markets that nations commonly studied in this field. Insularity dictates that islands seek shelter with larger nations, often former colonizers or neighboring nations with similar cultural backgrounds, that further isolate islands within a bubble (Thorhallsson & Steinsson, 2018). Sheltered nations often experience (economic) intrusion by the shelter provider which can perpetuate technology gaps that discourage Island Based Firms (IBF) to truly look for opportunities on the global market. Additionally, small size discourages the ability to maintain an appropriate human capital to truly operate a domestic market that can compete tete a tete with other nations. Consequently, SIN private sectors are deemed less sophisticated and competitive, positioning the SIN as a unique environment to study International Entrepreneurship (IE).

IE has been largely defined as an opportunity oriented process involving recognition and exploitation beyond domestic markets (Oviatt & McDougall, 2005). This process particularly involves identifying the competitive advantage a firm may gain when venturing abroad by directly or indirectly competing with domestic or foreign suppliers in that market. Venturing internationally is heavily dependent on the ability of leadership to identify opportunities, and having acumen to decide on action. Said skillset is one akin to multiple foundations in education, experience, exposure, tenure, and alignment with the firm goals. This research aims at providing evidence to allow for confirmation of already existing theories on the influence of on IE of Island Based Firms (IBF), where matters of insularity may dictate otherwise.

It is established that CEO Characteristics are often linked to the likelihood of IE of businesses. Having previous International Experience for example already enables CEO's with distinct capabilities to lead their firms across borders. Academic background has also been found as a determinant factor in leading foreign ventures as Business/Finance/Accounting/Economics graduates are trained to understand complex business structures and are able to leverage these to produce results. CEO's with higher academic achievements (graduate degrees) also distinguish themselves through their understanding of complex situations making them specifically unique as business leaders. Similarly, tenure also influences likelihood to think internationally as CEO's tend to become risk averse over time.

With IBF's being understudied in this environment this paper provides evidence of these claims so as to establish their applicability, responding to the need for more diversity in IE research. These contributions will help guide IBF corporate boards in understanding dynamics of their firm, as well as understanding how to better lead their organizations as a team. This paper is structured as follows: Section 2 provides hypothesis building as a result of a review of literature, whereas section 3 discusses the methodology associated with the testing of the hypotheses. Section 4 provides the results and discussion and draws to a close in section 5 with the contribution of this paper.

CONCEPTUAL FRAMEWORK

International entrepreneurship

Over the years, with the advent of e.g. technological innovations, IE has taken flight to offer opportunities and actions beyond means (Alcácer, Cantwell, & Piscitello, 2016). Publications

Commented [U1]: When writing the paper, try to visualize it as a story you want to tell to the reader. It should follow a sequential, logical path, without deviating the attention to what the story is about. For example, taking about being born global or becoming global in not the scope of the paper, it should not be included. Focus first on what is exactly you want to tell, and then build everything else coherent to that. For instance, if the idea is to test which CEO characteristics are associated with IE of islands, then you first need to justify this study (in the introduction, mentioning the novelty and importance of this research), and then in the conceptual framework you frame with the available literature what is required in order to test your hypotheses. Start first by defining IE, then talking about IE in islands, then explain how CEO characteristics are related to IE (for all CEO characteristics you will include in the hypotheses). After you show the positive and negative associations between one of the CEO characteristics you have in your data and IE, you finalize stating a hypothesis for that characteristic and IE. This is the relationship you expect to obtain between the particular CEO characteristic and IE. Since usually there is evidence in the literature that shows a positive and negative association, you must state your hypothesis taking into account the particular context of being small islands. Therefore, it is crucial you have defined previously why this is a special context, which are the differences and similarities with other places, and how it affects IE. After the hypotheses have been developed for all CEO characteristics in your data, you can continue with the methodology, data, and variables section. In the variables part, although the CEO characteristics are the main variables to include (independent variables), you now introduce control variables that will be employed also in the econometric model (for instance firm size). Introduce also the dependent variable, IE. Once you explain the data, variables, and methodology, you can continue to the next section, in which you analyse descriptive statistics, and then you explain econometric results. And in the conclusions, you finish with the main findings and implications of your work, limitations, and future research. The last part of the paper are the references. Remember to put everything in the appropriate section, without repetitions among and between sections. For example, when talking about IE in the first part of the theoretical framework, do not include yet the CEO characteristics and how they relate with IE.

have since then also advocated for more substance in research on IE, for example looking into Emerging Markets and their dynamics (Coviello, McDougall, & Oviatt, 2011) but also to allow for geographical diversity in order to allow for a better understanding of the phenomenon (Kiss, Danis, & Cavusgil, 2012). Regional Studies responding to these calls have revealed that both location and sectoral type of industry cluster influence internationalization of firms in said cluster (Andersson, Evers, & Griot, 2013). Other studies have echoed the need to study IE of firms irrespective of age and stage of internationalization, to better understand how current dynamics influence IE (Dimitratos, Johnson, Plakoyiannaki, & Young, 2016). Watkins-Fassler & Rodríguez-Ariza (2019) most recently contributed with a study on Mexican Family firms and have inspired this study to look beyond traditional markets, since they may challenge the notion of “nationalism” (Sarasvathy, Kumar, York, & Bhagavatula, 2014) that dominates theory.

The perspective of IE has further been expanded to encompass many dimensions of how the circle of IE is completed, by looking at e.g. Founder experience, and Institutional Influence (Cumming, Sapienza, Siegel, & Wright, 2009). IE entails more than solely opportunities, particularly it refers to action (Shane & Venkataraman, 2000). Determinants of these actions have been identified in the proactiveness and risk-taking components of an entrepreneurial orientation and the age of lead entrepreneurs, and negatively related to their education (Kropp, Lindsay, & Shoham, 2008). Studies of entrepreneurs in Chile have identified characteristics of firms engaged in early IE to be related to competitiveness of the new venture, and firm size (Amorós, Etchebarne, Zapata, & Felzensztein, 2016). The pace of IE, however, is very dependent on different forms of knowledge and learning, particularly also pre-existing foreign knowledge of executives (Casillas, Barbero, & Sapienza, 2015).

Some publications have highlighted the previous entrepreneurial and industry-specific managerial experience of the CEO positively influence the effect of learning on learning and entrepreneurial orientation, further solidifying the role of International Exposure in IE (D'Angelo & Presutti, 2019). Other publications highlight that CEO's familiarity with specific markets determine IE (Clark, Li, & Shepherd, 2018) signaling the multivariate interpretation of IE. Executive action is therefore a result of collective beliefs on what might constitute an opportunity (Mainela, Puhakka, & Sipola, 2018), and there is evidence that lack of experienced management involvement is negatively related to IE (Yener, Doğruoğlu, & Ergun, 2014). In summary, the extent of which a firm engages in IE is in (great) part determined by

CEO's Characteristics, which has not been properly covered in the response to calls for diversity in IE research. Particularly Small Island Nations have been overlooked, primarily due to lack of data, and applicability for theory. These studies however are very relevant as they fill gaps with regards to no less than 50 nations who share very little characteristics with North America or Europe, specifically with regards to maturity and access to foreign markets. This motivated the present study to look at SIN's so as to provide evidence whether or not ideas with regards to IE hold in a more diverse environment.

Insularity and island based firms

Most studies deal with markets where there is an absence of limitations and vulnerabilities as laid out by Briguglio (1995). SIN's share a colonial history, and have a common dependence on historical ties with former colonizing metropole nations in Europe. At present time these nations provide varying degrees of shelter for SIN's which creates an added layer of vulnerability. Chittoo (2011) study provides an argument that the nature of public administration changes with size, giving rise to the need to address SIN's public sector to facilitate appropriate economic policies to facilitate healthy environment for IBF's. Together these characteristics separate SIN's as particular environments where IE determinants could possibly differ from traditional theories. Studies using the Global Entrepreneurship and Development Index suggests a need to study High Impact Firms in SIN's to answer concerns such as these (Acs & Correa, 2014). Researchers have pointed out that SIN policymakers fail to understand the needs of their private sectors, therefore doing them a disservice by comparing them to counterparts in larger countries through their business policies (Minto-Coy, Lashley, & Storey, 2018). Frequently cited issues such as access to finance may be well addressed in policy actions, but IBF's continue to face barriers such as inadequately educated workforces, crime, theft and disorder, further threatening the success and well-being of firms (Drinkwater, Lashley, & Robinson, 2018).

Cuervo-Cazurra (2016) studied how domestic markets shaped the climate for internationalization and revealed, among others, two key aspects relevant to SIDS being: Market reforms and reversals and geographic isolation. These factors determine which factors drive international expansion, as businesses either expand through managerial learning in the home country (learning driver), or because home country conditions become less favourable for the business model (escape driver). Since these states share the character

of insularity, which can possibly render the opportunity costs involved of starting up and/or scaling a business higher than other observed spaces.

For example, Broome et al (2018) revealed that IBF's having access to bank financing are those more likely to invest in R&D, highlighting the need for more understanding on the region's particularities. Understanding determinants of IBF's related to IE is pivotal for adjustments in both public and private sector (Wood & Mckelvie, 2013). Signs of IE may be felt directly in economic growth indicators of a SIN and be of interest to study. With SIN being understudied, they have emerged as a particular category of market where IE determinants might differ from established knowledge.

International entrepreneurship and the CEO

Particularly CEO Characteristics which are very determining in IE of firms may reveal new insights and provide better understanding for the challenges faced by these executives. Of particular interest are those firms that are natives in the sense of being "domestic", and have pursued IE through establishing a physical venture outside their own market. Correia & Lengler (2017) confirmed in a study that the main stimulus responsible for internationalization was competence based, indicating that the learning driver accounted for international expansion. It is therefore appropriate to address the issue of CEO characteristics in a SIN context to provide evidence of the determinants of IBF's IE. Having found small size causing human capital issues, competent leadership is expected to be of even greater contribution to IBF's IE. This study observes common characteristics of leaders, particularly the CEO, as predictors of likelihood to venture abroad.

A renewed interest for Family Businesses and CEO relationships has emerged recently, identifying new avenues for family CEO research (Cirillo, Huybrechts, Mussolino, Sciascia, & Voordeckers, 2020). One study for example demonstrated that the more family is involved with management, the less productive output as a result of IE (Debicki, Miao, & Qian, 2020). Involvement in this case refers to active and operational involvement in the firm, and included decision making at the board level. Other studies provide evidence for family firms being significantly different from others in terms of converting the benefits of exporting into product innovation (Sánchez-Marín, Pemartín, & Monreal-Pérez, 2020). They cite that family firms plan on a different horizon and extract benefits from being involved in the operations of a business, particularly those with international outlooks. These findings however still confirm, or do not disprove, that Non Family CEO's are more likely to pursue IE than family

CEO's (Huybrechts, Voordeckers, & Lybaert, 2013). Non family CEO's perceived as to be more independent and are likely to perform better, as they are less inclined to be involved in intergenerational conflicts, related to IE common to family businesses (Alayo, Maseda, Iturralde, & Arzubiaga, 2019). This is despite the possibility of a family member being less suitable for the job, as families often prefer to keep the business in trusted hands. With regards to IE, there is evidence supporting the claim that Family Businesses are less likely to be engaged compared to their peers (Watkins-Fassler & Rodríguez-Ariza, 2019). As such there is substantial theoretical support to expect family allegiance of the CEO to be negatively associated with IE. Considering the additional barriers experienced on Islands, the first hypothesis is adopted as follows:

H1: CEO Family Allegiance is negatively associated with the probability to become international

In a study of Kenyan firms Kariuki, Namusonge & Orwa (2015) found the important role of CEO tenure moderating firm size and growth, giving rise to the possible link with foreign expansion. It is believed that tenure allows for the development of acumen, generating a foundation for better decision making as time progresses. Bauweraets (2020) confirm these results and extends the influence of CEO tenure on the odds of venturing abroad. Findings from manufacturing industries, however, have been successful in identifying links between tenure discouraging IE (Li, 2018), as CEO's grow conservative over time (Huybrechts et al., 2013; Lee & Moon, 2016). Image & reputation of one's tenure as CEO are crafted by successes, and risk projects such as R&D and IE are carefully reviewed before becoming actionable by firms (Hou, Li, & Priem, 2013). These studies all recognize the determining role of CEO's on IE, in the sense that the CEO is less likely to engage in IE as tenure grows. This renders the second hypothesis:

H2: CEO tenure is negatively associated with the probability to become international

International Exposure (IX) has been confirmed to be a critical determinant in the location CEO's seek to raise capital, indicating a profound influence of foreign education on CEO decision making (Bai, Tsang, & Xia, 2018). As International students join Business Schools abroad for career development (Cumming & Zhan, 2018) firms they end up leading are expected to engage more in IE, as they are specifically trained to recognize these

opportunities and act. IX is associated with corporate entrepreneurship (Wei & Ling, 2015) as foreign exposed leaders bring fresh experiences to firms when they are appointed. They are expected to dispose of a network and keen experience that is translated into their strategy for the firm. One of the most critical indicators of said experience is foreign education. Findings from manufacturing industries have been successful in identifying links between and IX encouraging IE (Li, 2018). Other studies also provide evidence of lack of IX being barriers to developing the most basic international element of businesses being export (Bianchi & Wickramasekera, 2016). It is evident that IX, particularly foreign educated candidates, are expected to have a positive influence on the likelihood of engaging in IE. This renders hypothesis 3 as follows:

H3: The odds for international entrepreneurship are higher when CEOs have studied in foreign universities.

The educational level of the CEO has considerable value in predicting export intentions (Andersen & Rynning, 1994). College education allows executives a distinct viewpoint in how firms are to be run in an efficient and effective manner, thus contributing to the firm's success (Ramón-Llorens, García-Meca, & Duréndez, 2017). Even though there is evidence that non business graduates are more productive (Teixeira & Correia, 2020), there is no confirmed link to IE. Branding is key in providing a basis for market extension in the rum industry (Pounder, 2010) providing support to the argument to the role of marketing knowledge being important for IBF's. With aspects such as branding & finance being a component of Business/Economics/Accounting programs CEO's that have graduated from business programs dispose of critical insight, allowing for IE. These studies provide a foundation to hypothesize that CEO's with college training in Business/Economics/Finance/Accounting are expected to be associated with IE, to which the following hypothesis is formulated:

H4: CEOs that majored in Business Administration/Economics/Finance/Accounting increases the odds for international entrepreneurship.

Entrepreneurship has been making its ways up the ranks of education, now also being included in executive graduate programs like the EMBA. Allahar & Brathwaite (2017) concluded that graduate studies including entrepreneurship in the Caribbean context are beneficial to needs of executives in their endeavors, particularly to expand across borders.

CEO Academic Achievement (AA) influences success of International Expansion (Hsu, Chen, & Cheng, 2013), as programs are designed to expose candidates to comprehend complex issues with regards to firm organization. Graduate degrees in Law and Engineering also contribute to this endeavor as they challenge candidates to be able to solve for situations that can open up opportunities abroad. Such Achievement can broaden the scope of CEO's to consider exploring and exploiting opportunities beyond domestic markets, rendering the following hypothesis:

H5: CEOs that pursued graduate studies are more likely to internationalize their firms

DATA AND METHODS

Data

The dataset for this research has been sourced from the annual balanced data from companies listed on the Stock Exchanges of Barbados, Cyprus, Fiji, Iceland, Jamaica, Malta, Mauritius, and Trinidad and Tobago for the years 2009-2018. The main criteria to include the firm in the sample was that it was headquartered in the market, with this ... firms were dropped. State-owned companies were excluded in the dataset, given the differences in their shareholding structure and that their strategy is significantly affected by government (regulations). Companies with less than 3 years of data were dropped from the dataset, as well as those that delisted in the period, a total of 23 firms. The final sample composed of 164 firms. The data, was obtained from Datastream as well as the companies' annual reports, which are available online and reviewed manually.

Commented [U2]: You can specify more on the firms considered in each country (number of companies per country, industry sectors,...), and also how you chose the sample from the population. First, why these islands among all possible islands. Then, are these all companies that are quoted in these exchanges, except for the government sector? Or is it that you considered only those firms that were included in the data for more than certain number of years? I recall from your data that it is not a balanced panel, as you mention by mistake in this paragraph. The idea is to describe as much as possible the data used. Also, mention the final number of observations you have in your database.

Table 1 Overview of Sample

	Barbados	Cyprus	Fiji	Iceland	Jamaica	Malta	Mauritius	Trinidad & Tobago
N	9	31	12	20	22	21	38	11
IE	3/9	7/31	2/12	3/20	5/22	7/21	14/38	7/11
FA	11%	54.8%	0%	0%	27%	4.7%	26%	27%
TE	6.1	15.4	8.6	6.7	9.6	7.03	8.7	6.2
IX	100%	84%	72.5%	57%	86%	49%	96%	70%
AB	87%	83%	80%	81%	72%	81%	81%	88%
AA	55%	20%	55.8%	73%	73%	64%	40%	67%

Datastream enabled access to financial statements already unified as US\$ output and rendered Net Income, Assets and Shareholders Equity for a majority of firms, particularly in Malta, Mauritius, Iceland, Cyprus and Fiji. With Regards to Barbados, Jamaica and Trinidad & Tobago data was collected through manual revision of the annual reports. The manual

revision was of extreme added value as it revealed important aspects of firms such as Family involvement. Family business (as having ownership and control of over 51%) has possibly not been captured in all cases due to convoluted holding and investment structures making up the firm. The main strategy to capture this element was through a capture-recapture strategy to isolate family firms from in the dataset. First self-identification in Annual Report, presence of more than 1 family member on the board, were applied as criteria allowing for consultations with experts of the respective islands to filter out family firms. Ultimately 27% of firms fit this criterion.

The manual revision also enabled the collection of data on the CEO including his/her tenure as CEO, as well as their academic background (having studied Business/Accounting/Finance/Economics or not) and academic achievement, i.e. having completed a graduate degree. This review also enabled the collection of data on whether the CEO enjoyed higher education abroad, versus having studied domestically. This process rendered 1544 observations

Variables

The following variables have been constructed from the data above:

A. Dependent Variable: International Entrepreneurship (IE). IE is approximated by a dichotomous variable, being 1 if during a particular year the company had subsidiaries or branches in foreign markets and 0 otherwise. On average, 40% of the companies under study participated in this type of foreign endeavor. A per island breakdown is provided in Table 1.

B. CEO Characteristics: b1. Family Allegiance (FA). Referring to the CEO being an appointed family member or not. B2. Tenure (TE). It refers to the number of years the CEO has worked in the firm as CEO (mean value 9.4 years; longest tenure being 59 years); b3. International exposure (IX). It is approximated by a categorical variable, being 1 if the CEO studied abroad, and 0 otherwise (on average 79% of CEOs have attended foreign higher education); b4. Academic background (AB). It is constructed as a dummy variable, being 1 if the CEO majored in Business Administration/Finance/Accounting/Economics (on average this is the case for 81% of CEOs), and 0 otherwise; b5. Academic achievement (AA). It is measured by a dichotomous variable, being 1 if the CEO pursued graduate studies (the mean value is 52%), and 0 otherwise.

D. Control Variables: d1. Firm size (FS). It is measured by the natural logarithm of total assets. d2. Return on equity (ROE). This variable reflects book value, and is calculated as net

income over equity. The average observed in this study was 29% for all islands with Trinidad & Tobago reporting the highest (50%) and Malta the lowest (0.7%).

METHODOLOGY

The relationship between IE and CC is empirically studied through a binary probit model. These models estimate probabilities of CC to determine the IE of firms. In this case the dependent variable (IE) takes a binary form, and is regressed with the CC's to determine how likely they are to determine the IE category of firms. For this model, a significant positive (negative) sign on an independent (and control) variable's parameter indicates that greater values of the variable increment (reduce) the odds of international entrepreneurship. Heteroscedasticity is taken into account by employing QML (Huber/ White) robust standard errors. Marginal effects are attained for all significant explanatory and control variables (p-value<0.01). Hence, the following equation is formulated:

Commented [U3]: Explain what is QML robust standard errors.

$$EQ\ 1: IE_{it} = \partial_0 + \partial_1 FA_{it} + \partial_2 TE_{it} + \partial_3 IX_{it} + \partial_4 AB_{it} + \partial_5 AA_{it} + \partial_6 FS_{it} + \partial_7 ROE_{it} + \mu_{it}, \quad (1)$$

Where: i refers to the company; t is time; IE correspond to the dependent variable: international entrepreneurship; FA, TE, IX, AB, and AA are the CEO Characteristics: family affiliation, tenure, international exposure, academic background, and academic achievement; FS and ROE are the control variables: firm size and return on equity; μ is a random error term.

RESULTS & DISCUSSION

Descriptive statistics

A substantial part of IBF's 40% is engaged in IE, comparable to findings in studies cited in the literature review. About 23% of firms have a CEO with Family allegiance, and self-identified as family firms, emblematic of the region where as with Latin America family firms are typically averse towards securitizing their firm. From all CEO's average tenure is observed at 9.4 years with high turnovers in some companies and a long tenure of 59 years in one firm. CEO's of IBF's tend to be very educated with 81% having a background in business/economics/finance/accounting, and 79% having enjoyed foreign higher education.

This indicates a substantial international outlook of CEO's of IBF, which can explain why they are on the securities exchange. 51% of these CEO's have enjoyed graduate degrees, which further indicates that CC's of IBF's are substantially well prepared as leaders of their firms.

Table 2 Descriptives

Variables	Minimum	Maximum	Average	S.D.
IE	0	1	.39	.48
FA	0	1	.23	.42
TE	0	59	9.4	8.81
IX	0	1	.79	.41
AB	0	1	.81	.38
AA	0	1	.51	.49
FS	5.27	20.70	13.75	3.11
ROE	-11.89	32.56	.28	1.92

The correlations between the variables are shown in Table 3. Most of the explanatory and control variables (with the exception of ROE) correlate significantly with IE of IBF's, measured by the dichotomous variable IE (being 1 if during a particular year the company had subsidiaries or branches in foreign markets). This finding validates the explanatory power of these variables on internationalization and justifies their inclusion in the model. With regards to multicollinearity, findings indicate acceptable levels of VIF.

Table 3. Correlation Matrix

	IE	FA	AA	AB	IX	TE	ROE	SIZE
IE	-							
FA	-0.120471	-						
AA	0.141598	-0.173283	-					
AB	-0.115710	0.043844	0.044000	-				
IX	0.102963	0.057955	0.161451	0.137470	-			
TE	-0.137068	0.350854	-0.238347	-0.137778	-0.045534	-		
ROE	0.034540	-0.062650	-0.064078	0.029332	0.044664	-0.035301	-	
SIZE	0.293717	-0.151738	0.149941	0.076634	0.013824	-0.183954	0.104095	-

Results

The econometric results of the relation between IE and CC is exposed in Table 4, whereas marginal effects for the significant explanatory and control variables (p -value <0.01) are shown in Table 5. Family Allegiance has not been found to be significant in determining IE of IBF's, this may be due to the likelihood of family businesses not being completely captured in the data strategy. IBF's have also been very diverse in nature and are often the only ones of their kind in their domestic market, which may explain IE more than the linkage to the family. Therefore, the first hypothesis linking Family Allegiance to IE is rejected.

Commented [U4]: Explain what are acceptable values of VIF (and define VIF), and mention that multicollinearity does not need additional treatment due to it. Also, build a table with VIFs.

You can tell an interesting story with the information from descriptive statistics. Start by mentioning that most companies included in the study are involved in IE. You can make some interconnections between variables, as for instance that the educational level of CEOs is high and internationally oriented. Most CEOs have attained graduate studies in Business, from foreign universities. Descriptive statistics should be used to describe as much as possible the CEOs you are working with. It will help you later on to build on your results and conclusions.

The probability of having subsidiaries or branches abroad increases 15% when CEO's have foreign education. Hereby this study accepts the hypothesis and corroborates previous studies that confirm this link. Since this study did not cover state owned enterprises (SOE's) which can have considerable advantages to venture abroad, it is possible that this link is more pronounced when a broader dataset is observed. Nonetheless this validates the role of foreign education and sustains the desirability of candidates with IX in the recruitment process of firms that have international ambition.

CEO's with graduate degrees increase the odds IE with 7% which is consistent with established knowledge on the role of AA on IE. The process of IE is complex in nature and can only really be pulled apart, in order to act, by those with advanced training who have developed leadership skills through graduate degrees. These candidates often bring considerable experience upon their appointment as CEO, through the career path that was opened upon achieving such training.

Surprisingly AB reduces the odds by 21%. Graduates in Business/Economics/Finance/Accounting are very skilled in administering the business but are not so much contributing to IE. These programs can often include diverse variations and not include IE relevant aspects that enable CEO's with this background to act on opportunities. With respect to the financial aspects these candidates may be more likely to achieve better performance through other strategies, such as cost cutting and capital budgeting, which are actionable on the short run, further validating their leadership. Another reason behind this finding may well be that these leaders are recruited specifically with these tasks, as firms may be inward oriented due to insularity characteristics of domestic market. The firms in financial industry such as banks are specifically tailored to cater to the local market, for example. On the other hand, some of the listed firms invest on the island are particularly designed to invest in businesses exploiting island specific endowments such as ports and fisheries, which may explain these findings.

Tenure reduces the odds of IE by 0.048% for each additional year, confirming previous research linking tenure to increase of risk aversity, which discourages projects involving risk such as IE. CEO tenure, does not include tenure with the firm, which further contributes to risk aversity with regards to IE. Therefore, these results find grounds to accept the negative link between Tenure and IE, in IBF. Regarding control variables, company size positively relates with the probability of IE, while ROE does not show a significant effect on IE likelihood.

Table 4. Coefficients

Variable	Coefficient	Prob.	Std. Error
Constant	-1.746249	0.0000	0.19
FA	-0.163978	0.0608	0.08
AA	0.192565	***	0.07
AB	-0.575924	***	0.09
IX	0.401306	***	0.08
TE	-0.012476	***	0.00
ROE	0.002481	0.8792	0.01
FS	0.120078	***	0.01

Table 5. Marginal Effects

Variables	Effect
AA	0.07***
AB	-0.21***
IX	0.15***
TE	-0.0048***
FS	0.04***

Commented [U5]: If you put the p values, all variables should have their corresponding p-value instead of ***. It is better to put the P value and at the side of the coefficient put *, **, or ***, depending on if the coefficient is significant at 10, 5, or 1% level. There should be a legend explaining the significant levels. Also, include R-squared, LR Statistic, and Prob (LR statistic). And follow the journal guideline on how to show the tables. Use two decimals in the tables.

CONTRIBUTION

Endeavouring internationally is a process that requires keen insight and direction, and is critically influenced by CEO's. This study covered 164 IBF's quoted on Securities Exchanges across 8 islands in the Caribbean, Europe, Africa and Oceania: 39% of which had foreign operations. This paper advances the frontier of knowledge in studying IBF's which are generally overlooked in business research. The database provides evidence that CEO's with international training, and those with graduate degrees, increases the probability for IE. Consistent with previous research CEO's training plays a role in the foreign business goals they set for their firms. Surprisingly business graduates discourage IE of their firm and are less likely to fulfil the goal of their program, when appointed as CEO. This can be attributed to many factors and is subject to further research. It may be that CEO's have longer tenure within the company possibly as CFO or COO, which contribute to their knowledge of the firm and further discourages IE.

IBFs are vulnerable in this pursuit as businesses can often be domestically oriented, and as a consequence remain hesitant to operate in markets abroad. With an average tenure of 9 years CEO's of IBF's have significant time to pursue IE projects. The data however shows that longer tenures are negatively associated with IE, consistent with previous studies. CEO's Academic Achievement and International Exposure have been confirmed as contributing determinants of IE, whereas Academic Discipline and Tenure were found to be discouraging of IE of IBF's.

CEO's with Higher Education, advanced degrees understand complex decision-making process and are more likely to engage in IE. Studying in a different country is also a factor that enables a CEO to contribute to the IE endeavours of IBF's, as they gather knowledge and experiences across borders. IBF's markets are very limited and a similar pattern has been observed in the industries that make up SIN economies, including tourism, services, and manufacturing. IE in these industries, as data shows, are not promoted when CEO's specialize in business/finance/economics/accounting in higher education. Finally, tenure is a discouraging determinant of IE for IBF's, whereas family allegiance of CEO's in SIN's remains inconclusive as a determinant.

The concept of insularity and inward focus may be an interesting avenue for future research. Other research recommendations are to delve deeper into CEO characteristics with regards to diversity, study board compositions and/or multiple directorships, or alternatively delve in specific industries such as hospitality & tourism (which is of essential value to islands).

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Commented [U6]: This is an unusual result, which you need to justify very well, including putting literature on this relationship (starting at the literature review section).

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