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Inter-firm marketing collaboration in family businesses: The role of risk aversion

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ABSTRACT

Family businesses show low participation in inter-organizational collaborations. Inter-firm collaborations are activities in which companies seek to access resources and develop capabilities that they cannot achieve on their own. While there is empirical evidence that family businesses show a high level of risk aversion, some studies have shown the opposite. Further, research on this topic has focused mainly on economic and financial decisions, but few studies explore family business attitudes toward risk in non-financial decisions, such as marketing collaborations. Using a bivariate probit model in a sample of 1,118 Chilean family firms, we analyzed the extent to which the degree of risk aversion influences the probability of family firms participating in marketing collaborations with other firms and on the probability of cooperating with firms with which the family firm has had previous business experience. We found that although most conservative family firms are reluctant to take risks when entering a collaborative relationship, they are willing to take risks when engaging with partners with whom they have not had a previous relationship. The findings expand on research regarding family businesses' attitudes toward risk, relative to strategic non-financial decisions, and the theoretical development of their collaborative marketing visions.

Introduction

Family businesses have distinctive characteristics that are reflected in their decision-making process. There is considerable empirical evidence that family businesses display a high degree of risk aversion (Fama & Jensen, 1983; González et al., 2013). Some authors have challenged this premise by showing that these firms are willing to take high levels of risk if their socio-emotional wealth is threatened (Berrone et al., 2012; Llanos-Contreras et al., 2021). This contradiction opens discussion about the conditions under which family businesses behave in a risky manner and when they act conservatively. The literature on attitudes toward risk has been widely developed in the field of family businesses (Llanos-Contreras et al., 2021), mainly regarding economic and financial decisions (Anderson et al., 2012; González et al., 2013). However, attitudes toward non-financial decisions (i.e., inter-organizational collaboration) have received limited attention.

Inter-organizational collaboration in family businesses was studied in the product development context, without exploring other organizational capabilities, including marketing skills. Inter-organizational collaborations involve two levels of risk (van der Krogt et al., 2007). The first relates to the considerable risk of deciding to engage in a collaborative relationship with another firm (Costello, 2013; Eeckhoudt et al., 2005; Lo & Hung, 2017; Williamson, 1985). The second type is related to the permanence of the firm in the partnership. While the firm remains in a collaborative relationship, it can reduce the risk of its strategic activities (Cainelli et al., 2012). Since the literature does not explore the implications of risk on collaboration in family businesses' strategic activities, it is imperative to expand knowledge of attitudes toward risk in non-financial decisions.

This study examines the relationship between the degree of risk aversion of family businesses and the probability that these businesses will establish collaborative relationships with other firms in marketing strategies. This study focuses on the first type of risk faced at the time the family business decides to engage in a collaborative relationship. Additionally, once the family business chooses to collaborate with others in marketing activities, it becomes possible

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to explore the influence of their attitude toward risk in the decision to collaborate with known companies.

A discrete choice analysis was carried out on a sample of 1,118 Chilean family businesses of varying sizes and sectors. Considering that a family business simultaneously chooses to engage in a collaborative relationship with the partner with whom this collaboration will be undertaken, the study used a bivariate probit model (McFadden, 1984; Van de Ven & Van Praag, 1981). This study shows that the most conservative family businesses are reluctant to take risks when choosing to enter a collaborative relationship. Yet, they are willing to take risks when engaging with partners with whom they have not had a previous relationship.

The findings in this study contribute to the development of models of choice under conditions of uncertainty for different family business strategies. Furthermore, it extends the field of analysis of the attitude toward risk of family businesses to non-financial decisions and the theoretical development of the relational vision of marketing collaboration in family businesses.

In Section 2, the article presents the development of two hypotheses based on the literature review. Section 3 presents the structure of the data, definition of the variables, and specification of the model. Section 4 details the empirical results of each model. These findings are discussed in Section 5, and conclusions from the results are presented. Section 6 mentions the limitations of the study and proposes future research directions.

Theoretical Framework

Attitude toward risk is a central element in an agent's decision-making (Fellner & Maciejovsky, 2007). The choices that managers make signals that their attitude toward risk is imprinted in the strategic orientation of the firm (Eeckhoudt et al., 2005; Kahneman & Tversky, 1979; Wolf & Floyd, 2013). Risk comes from the lack of certainty regarding the consequences of a decision, which gives rise to a series of beliefs related to the likelihood of each possible outcome (Savage, 1954). For family and non-family businesses, risk is the probability of loss associated with a decision that prevents the firm's objectives from being met (Daniell & McCullough, 2013).

There is evidence that family businesses show a high level of risk aversion when making decisions that affect family wealth (Fama & Jensen, 1983; González et al., 2013). A distinctive feature of family businesses is that they not only seek to preserve financial wealth but also social-emotional wealth (Gonzalez et al., 2017). Although business owners may feel dissatisfied if business performance falls below a certain level (Mahto et al., 2010), dynastic succession, perpetuating family identity, and ensuring control of the business in the future are elements that shape these enterprises' long-term orientation (Burk & Alan, 2007; Chrisman & Patel, 2012). The family's objective of retaining control of the company represents a strong incentive to make investments that allow them to project themselves into the future (Anderson et al., 2012; Ibrahim et al., 2001), which implies taking risks of varying magnitude.

There is no consensus in the literature regarding the willingness of family businesses to take risks. For example, Visser and Van Scheers (2018) point out that in first-generation family businesses, risk-taking is a motivator, while second-generation businesses prefer to avoid risky scenarios. Other authors have demonstrated that family businesses display a high degree of risk aversion (González et al., 2013). Gómez-Mejía et. al. (2007) propose that family businesses' sense of risk is scenario-specific. When socio-emotional wealth is threatened, family businesses can assume excessive levels of risk that may challenge economic reasoning (Berrone et al., 2012; Llanos-Contreras et al., 2021), while avoiding certain risky investments to retain control of the firm (Gómez-Mejía et al., 2014). Recent research suggests that family businesses are willing to assume a level of risk that allows them to survive and avoid financial and socio-emotional losses (Gomez-Mejia et al., 2019).

Companies' inclination to take risks influences their willingness to enter into partnership agreements with other companies (Kilenthong et al., 2016; Martin et al., 2019). Through inter-firm cooperation, family businesses can access resources, such as capital, information, knowledge, and technology (Feranita et al., 2017). Specifically, collaborations are a good way to strengthen marketing capacities (Tajeddini & Ratten, 2020). According to Bruni and Verona (2009: p.103), dynamic marketing capabilities reflect the knowledge, human, and social capital of the managers involved in the creation, use, and integration of resources to shape and shift the market, according to technological change. Vorhies and Morgan (2005) identify eight marketing capabilities that contribute to business profitability: (1) product development; (2) pricing; (3) channel management; (4) marketing communications; (5) sales; (6) market information management; (7) marketing planning; and (8) marketing implementation. Therefore, marketing collaboration is a cooperative agreement between companies to undertake joint action to develop and strengthen some of these eight marketing capabilities.

Marketing collaborations between companies are varied and cover activities such as the development of new products/services, reduction of marketing costs, global expansion, and entry into new markets (Tajeddini & Ratten, 2020). Little research has been conducted on the inter-organizational collaboration preferences of family firms (Cesinger et al., 2016; Hatak & Hyslop, 2015). Limited research concerns the explicit influence of risk aversion on collaboration decisions in commercial or non-financial dimensions.

The literature identifies two types of risks in inter-firm collaboration (van der Krogt et al., 2007). The first type is when the company decides to engage in a collaborative relationship with another firm. In this first step, inter-firm cooperation is exposed to various risks, such as opportunism (Williamson, 1985), unobservable effort (Eeckhoudt et al., 2005), information asymmetries (Costello, 2013), and power asymmetries (Lo & Hung, 2017). The second type of risk applies to the permanence of the company in a collaborative relationship. While the firm maintains the cooperation link with other firms, it can reduce the risk in its shared strategic activities (Cainelli et al., 2012). This study focuses on the first type of risk in inter-firm collaboration, i.e., when the family business decides to get involved in a collaborative relationship with another firm. In this context, the following hypothesis is proposed:

H1. Increased risk aversion has a negative effect on the likelihood of family businesses becoming involved in marketing collaborations with other companies.

Inter-firm collaboration is a specific type of organization in which two legally independent companies agree to integrate efforts and resources in a bilateral relationship to obtain long-term and mutual benefits (Hatak et al., 2015). Transaction cost theory establishes two main types of governance: market and hierarchy (Williamson, 1985). However, intermediate forms that do not comply with either the market or the hierarchy also exist. Trust, cooperation, goodwill, and commitment in relationships cannot be regulated by explicit contracts or authoritative relationships (Puranam et al., 2014). Inter-organizational collaboration fits into this intermediate form of governance and can manifest itself vertically or horizontally (Gibbons, 2010; Williamson, 1985). Naturally, firms engage in cooperative relationships with known partners, including suppliers, distributors, and customers (vertical collaboration), instead of entering into collaborative arrangements with competitors (horizontal collaboration) (Lewis et al., 2015). The existence of prior relationships between collaborating firms reduces the risks of engaging in cooperative relationships with other firms, as both firms have the expertise to assess the capabilities and reliability of their partners (Billitteri et al., 2013). Therefore, the following hypothesis is proposed:

H2. Increased risk aversion increases the likelihood that family businesses will engage in marketing collaborations with known companies.

Method

The objective of this research is to determine the influence of risk aversion on the likelihood of a family business collaborating with other businesses on marketing strategies. It would be interesting to know the effect of risk aversion on the choice of a partner for the marketing collaboration of family businesses. Since the decision to engage in a cooperative relationship is made with the choice of the partner with whom this collaboration will be undertaken, the study used a bivariate probit model (McFadden, 1984; Van de Ven & Van Praag, 1981). This model simultaneously estimates the probability that the family firm will collaborate with other firms on marketing strategies and the probability that the family firms collaborating will do so with partners with whom it had previous commercial experience (e.g., suppliers, distributors).

Data

The study used the fifth longitudinal survey of companies (ELE5). This official database provides detailed information on 6,480 Chilean companies with different characteristics (INE, 2017). This survey is published every two years by the National Statistics Institute of Chile (INE). The study used the latest version of this survey, which was published in 2019 and corresponds to 2017 data. According to Cromie et al. (1995) the definition of a family business applies to those companies with an 80% stake controlled by a family group. To isolate the effect of entrepreneurship and the influence of third-generation ownership, the sample is restricted to companies between five and 50 years old. Firms that did not report revenues during 2017 were discarded. The resulting sample is 1,118 family businesses of different sizes and categories.

Variables

The first dependent variable is a dichotomous variable that takes a value of one if the family business has established marketing collaborations with other companies and a value zero if not. The analyzed collaborations are cooperations in product/service sales and promotion, considering marketing capabilities (Vorhies & Morgan, 2005). For example, this includes companies that partner to reduce the costs of marketing their products/services or share knowledge to enter new markets (Tajeddini & Ratten, 2020). The second dependent variable is dichotomous and takes the value one if the firm collaborates in marketing activities with a firm with which it has had previous commercial experience (e.g., suppliers or distributors) and zero if not.

The independent risk aversion variable is represented by a proxy that includes the amount of insurance the firm holds and the fear of losing control of the firm (Eeckhoudt et al., 2005). In the ELE5, employers are asked to rank their fear of losing control of the firm on a scale of one to three, where one is very important and three is not very important. This variable was inverted in its coding to present it in an ascending form; that is, one is not very important and three is very important. The base measure was the amount of insurance that the company has (Eeckhoudt et al., 2005) which ranges from zero to four insurance policies. The total risk aversion measure considers the addition of the fear of failure and the amount of insurance held by the enterprise. Therefore, this variable has values between one and seven, with one being the least risk-averse measure. That is, when the enterprise does not have insurance and the fear of losing control of the enterprise is of little importance; and seven being the most risk-averse measure when the enterprise has four insurance policies and considers the fear of losing control of the enterprise to be very important.

The control variables are family member managers, the intensity of competition (Park et al., 2014), age and size of the firm (Martin et al., 2019) and, market power (Lo & Hung, 2017; Niemelä, 2004). The Appendix defines each of the variables in detail. Table 1 shows the descriptive statistics for each variable.

Table 1

Descriptive statistics

Variables	Min	Max	Mean	Std. Dev.
Dependent Variables				
Collaboration	0	1	0.089	0.286
Related collaboration	0	1	0.052	0.221
Independent Variables				
Risk aversion	1	7	2.469	1.282
Owner-manager	0	1	0.582	0.493
Competition intensity	1	5	3.749	1.285
Firm age	1	5	2.009	0.990
Firm size	1	5	3.428	0.286
Market leader	1	5	2.967	1.206
Observations			1,118	

Results

Descriptive statistics show that family businesses involved in collaborative marketing relationships represent about 9% of the sample. More than half of the family businesses are run by a family member and show a low level of risk aversion. From the total number of family businesses that collaborate, 58% do so with firms with which they have had some previous experience (e.g., suppliers or distributors). Table 2 illustrates the estimated coefficients and the marginal effects of the bivariate probit model.

The results indicate that risk aversion has a significant negative influence (β=-0.102; $p \leq 0.05$) on the likelihood of family businesses collaborating with other firms on marketing activities. This finding supports H1, that is, a higher level of risk aversion reduces the willingness of family firms to enter collaborative marketing relationships. Risk aversion has a negative effect on the likelihood that family firms willing to engage in collaborative marketing will choose to do so with firms with which they have previous experience, such as suppliers or distributors (β=-0.091;$p \leq 0.10$). This result does not support scenario 2. That is, conservative family businesses do not show a greater willingness to cooperate with companies with which they have interacted in the past. The model adjustment measures were satisfactory.

Discussion and Conclusions

The development of marketing capabilities directly impacts firm performance (Li & Calantone, 1998; Morgan et al., 2009; Orr et al., 2011). Marketing collaboration involves taking risks in the decision to enter into a partnership (van der Krogt et al., 2007) and reducing risk by sharing the management of a strategic activity for the firm with other firms (Cainelli et al., 2012). In this sense, the willingness of family businesses to assume these risks is a fundamental aspect of decision-making for cooperation in marketing activities. Given their particular characteristics, family businesses have a different way of perceiving the risk of their operations and evaluating the firm's performance (Fama & Jensen, 1983; González et al., 2013). Collaboration opposes the idea that family businesses seek to retain control of their business operations (Anderson et al., 2012; Gómez-Mejía et al., 2014). However, family businesses' long-term orientation and objectives of preserving social-emotional wealth may lead to inter-firm collaborative activities (Berrone et al., 2012) if the long-term benefits are worth the risk of cooperation. In this study, the low number of collaborating family businesses supports the findings of Pittino and Visintin (2011).

The results of this research suggest that more conservative family businesses are less willing to face the risk of get-

Table 2

Bivariate probit model results

	Join a marketing collaboration		**Collaborate with a company that is known to the family business**	
	Coefficient	**Std. Dev.**	**Coefficient**	**Std. Dev.**
Risk aversion	- 0.102**	0.045	- 0.091*	0.054
Owner-manager	0.043	0.113	- 0.222	0.133
Competition intensity	0.086*	0.045	0.103**	0.048
Firm age	0.121**	0.052	0.051	0.059
Firm size	0.075*	0.040	0.066	0.046
Market leader	0.009	0.048	0.068	0.056
Constant	- 2.004***	0.271	- 2.242	0.313
Wald chi2	60.98			
Prob > chi2	0.000			
Observations	1,118			

	Marginal effects for Join a marketing collaboration with a company that is known to the family business	
	Coefficient	**Std. Dev.**
Risk aversion	- 0.009*	0.005
Owner-manager[a]	- 0.022	0.014
Competition intensity	0.010**	0.005
Firm age	0.005	0.006
Firm size	0.006	0.005
Market leader	0.007	0.005
Predict	0.047	

***/**/* indicates significance at the 0.01/0.05/0.1 level

[a] Marginals for discrete change of dummy variable from zero to one

ting involved in marketing collaboration, even though this collaboration may help them reduce risk in their marketing activities in the future. Nieto et al. (2015) reported similar findings in the technology innovation collaboration context. The governance paradox involves tensions between control management and collaborative approaches (Sundaramurthy & Lewis, 2003). For example, one of the barriers to entering partnerships is the fear of losing control of the company (Skippari et al., 2017; Tuffa Birru, 2011). Gomez-Mejia et al. (2014) propose that family businesses avoid certain risky investments to retain control of the firm. The results of this research extend this conclusion into the area of strategic marketing decisions. Similar to the behavior regarding financial decisions, family firms may be reluctant to engage in strategic marketing partnerships that interfere with retaining control of the firm.

Once family businesses have decided to collaborate on marketing strategies with other firms, the choice is whether to collaborate with known companies (e.g., suppliers or distributors) or with firms they do not know. According to Billitteri et al. (2013) and Lewis et al. (2015), non-family firms are more willing to collaborate with firms they already know, especially with suppliers and distributors. The findings in this research show that family businesses that are more risk-averse are not inclined to cooperate in marketing with firms with which they have had a previous business relationship. Although literature on research and development (R&D) collaborations indicates that family firms show less breadth in seeking collaborative partners, such firms may be more willing to seek a partner outside their networks for marketing collaborations (Feranita et al., 2017). A more conservative family business may be motivated to search for and carefully evaluate potential partners and make choices based on factors other than previous experience with companies in their current network.

In conclusion, family businesses assume different attitudes toward risk depending on their characteristics and the type of decision required. A high degree of risk aversion in family businesses decreases the willingness to participate in inter-firm marketing collaborations. Risk aversion also influences the choice of partners with which the family business will collaborate. The extent to which potential partners can lead a conservative family business to cooperate in marketing strategies, even with competitors, depends on whether this collaboration threatens family wealth and business control.

This research contributes to the theoretical development of the relational vision of marketing collaboration in family businesses (Feranita et al., 2017). The degree of risk aversion in the family business influences both the willingness to collaborate and the choice of collaboration partners. In marketing collaborations, the most conservative family businesses are reluctant to take risks when choosing to enter a collaborative relationship and are willing to take risks when engaging with partners with whom they have not had a previous relationship. This apparent dichotomy reflects the complex role that risk aversion plays on non-financial decisions in the family business. This study helps to demonstrate that family businesses do not necessarily have a limited scope for seeking collaborating partners and proposes that more conservative family businesses explore beyond their networks for potential collaborative partners for marketing strategies.

Limitations and Future Research

Since the number of family businesses involved in marketing collaborations is limited, the unbalanced data structure represents a problem for the estimation of econometric models; therefore, there may be a bias in the estimation (Tomz et al., 2003). Another limitation of this study is the lack of longitudinal data, which could improve the estimation accuracy of the proposed models. The available data does not reflect the complex nature of the collaborative strategies or the special characteristics of family enterprises. This study would benefit from qualitative research that provides more complete information regarding the specific marketing collaboration preferences of family businesses.

This research fills an important gap in the literature on family businesses by including attitude to risk as an important element in strategic non-financial decision-making, including marketing collaboration. This study can help advance research on the mechanisms of strategic choice in diverse areas of family businesses, such as game theory and models that include moral risk, contracts, and attitude toward risk. This research can also be extended to family businesses in other countries to find contrasts and similarities based on cultural differences and diverse social contexts. Family businesses assess risk in a complex manner, considering their long-term orientation and protecting their socio-emotional wealth. This opens up the possibility of future research into the assessment of collaborative marketing strategies and their influence on the long-term performance of family businesses. It would also be interesting to explore how family businesses create and develop organizational marketing capabilities in high-risk scenarios.

Given that collaborative relationships involve two levels of risk, when entering the cooperative relationship and when remaining in it, it is interesting to know what factors influence the permanence in or exit from a collaborative relationship. Another fundamental aspect is to determine the limits of the family business in a cooperative marketing relationship that shares its resources, knowledge, and routines. Further research into the choice of partners in collaborative activities presents opportunities to explore the search mechanisms and evaluation criteria that family businesses employ to select potential collaborators.

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Appendix

Variables	Definition	Measures
Dependent Variables		
Collaboration	The company has established partnerships with other companies for sale or promotion of its products.	0 = No 1 = Yes
Related collaboration	The company has established partnerships with suppliers or distributors for the sale or promotion of its products.	0 = No 1 = Yes
Independent Variables		
Risk aversion	Attitude toward risk based on the amount of insurance and fear of losing control of the company.	Scale 1 (low) to 7 (high)
Competition intensity	Number of competitors the company is facing.	Scale 1 (low) to 5 (high)
Firm age	Time of operation of the company since the beginning of activities.	1 = From 6 to 14 years 2 = From 15 to 23 years 3 = From 24 to 32 years 4 = From 33 to 41 years 5 = From 42 to 50 years
Firm size	Size of the firm according to the criteria of the economic authority of the country.	1 = Micro business 2 = Small business 1 3 = Small business 2 4 = Medium-sized company 5 = Large company
Market leader	How relevant is the company in relation to all its competitors?	Scale 1 (not important) to 5 (very important)
Owner-manager	The manager of the company is a member of the family.	0 = No 1 = Yes