

The determinants of family firms' subcontracting: A transaction cost perspective.

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Abstract:

In this article we compare the governance choices of family and non-family firms regarding their subcontracting tendencies. Based on transaction cost theory, we argue that family firms are less likely to engage in subcontracting than non-family firms and that kinship ties, the extent to which a family firm's production activities are important, and cost minimization concerns influence the extent to which family firms utilize subcontractors. Using a sample of small, established firms, we find support for our hypotheses as well as for the use of transaction cost theory logic to explain family firm behavior.

Research highlights

We compare family and non-family firms regarding their propensity to subcontract. We find that family firms are less likely to subcontract than non-family firms. Kinship ties, importance of activities, and cost concerns affect subcontracting decisions.

Keywords: transaction cost theory | family business | subcontracting | business strategy | family businesses | family firms

Article:

1. Introduction

Family firms constitute a major portion of national economies throughout the world (Dyer & Handler, 1994). However, the focus of organizational research has been on non-family firms; as a result, investigating differences between family and non-family firms remains of primary importance in family business research because the differences are still unclear theoretically and practically (Dyer, 2003 and Hoy and Verser, 1994). Since governance decisions play a critical role in firm performance and long-term survival (cf., Carney, 2005) and can help explain why family firms exist and prosper, it is a central dimension of how family and non-family firms may differ.

Transaction cost theory (TCT) is a theory developed to deal with the governance decisions of organizations and the efficient boundaries of a firm (Williamson, 1975a, Williamson, 1981, Williamson,

1985 and Poppo and Zenger, 1998). Therefore, it is the theoretical framework this study uses to investigate how governance may be different in the two types of firms. Within TCT, a firm's choice between hierarchical governance, market-based exchanges, or hybrid governance (such as subcontracting) is determined by the extent to which a firm finds it more efficient to make or buy a product or service and engage in arms length or relational contracting (Walker and Weber, 1984 and Williamson, 1981). Furthermore, the decisions to make or buy are affected by asset specificity, behavioral uncertainty regarding opportunism, and risk preferences (Chiles and McMackin, 1996, Gulati, 1995, Williamson, 1985 and Williamson, 1991).

One specific area that can cause systematic governance differences between family and non-family businesses is a firm's decision to subcontract. By subcontracting, we mean that the firm contracts with others to produce certain goods and/or services needed by the business. It could pertain to a single isolated event or repeated events. The latter requires long term and more involved transactions between the firm and the party to which the activities are contracted and is the subject of this study. It is a well-defined strategic choice and thus amenable to quantitative investigation. In addition, no study to date has focused on differences between family and non-family firms in the level of subcontracting and the specific family related factors that lead family firms to engage in subcontracting activities.

We combine the precepts of transaction cost theory and the literature on family firms to argue that family firms have different preferences toward subcontracting than non-family firms. We then test whether these preferences are manifested in decisions regarding the use of subcontractors. We also consider the factors that explain variations in subcontracting among family firms by examining the direct effects that (1) kinship ties with subcontractors, (2) the extent to which firm activities are important, and (3) cost minimization concerns have on family firms' preferences for subcontracting rather than internal production.

This study contributes to the family firm literature in the following ways. First, we use transaction cost theory as a theoretical lens (Williamson, 1975b and Williamson, 1985) to show how the idiosyncratic propensities of family firms influence their governance decisions and to what extent these decisions are likely to differ from those made by non-family firms. This line of investigation enhances the development of the theory of the family firm and highlights the importance of incorporating transaction cost theory into family business studies (Chrisman et al., 2004, Chrisman et al., 2005 and Chua et al., 1999). Second, a theory of the family firm must be able to explain the differences between family and non-family firms plus the variations among family firms; but most empirical studies addresses only one or the other. This is one of the infrequent studies that examines both. Third, we answer the call for studies that help explain the governance decisions of small firms (Dewald, Hall, Chrisman, & Kellermanns, 2007). Specifically, we examine factors that influence the propensity of family firms to use subcontractors. We thereby contribute to a better understanding of variations in governance choices among both small and family firms.

The remainder of this article is organized as follows: First, the theoretical background and the hypotheses are presented. Second, the methodology is described. Third, the results are presented and discussed. In the final section, we provide future research implications.

2. An overview of transaction cost theory

Attaining cost efficiencies is the principal concern of transaction cost theory (Williamson, 1975b and Williamson, 1985). Transaction costs are broadly defined as the “costs of running the economic system” (Arrow, 1969: 48). According to Williamson (1985), the contract is the key element of transactions, involving a transfer of goods or services between parties in an exchange. Williamson (1985) distinguishes between ex ante contracting costs such as the drafting, negotiating, and safeguarding of an agreement and ex post contracting costs such as maladaptation, haggling to correct misalignments, set up, operating, and bonding costs. These transaction costs influence the choice between markets, hierarchies, or hybrid (e.g., strategic alliances) governance structures (Walker & Weber, 1984). The efficacy of these choices depends upon asset specificity, uncertainty regarding the potential for opportunistic behavior among exchange partners, and risk preferences of decision makers (Chiles and McMackin, 1996, Gulati, 1995, Williamson, 1985 and Williamson, 1991).

Behavioral uncertainty derives from bounded rationality and agent's opportunism (Williamson, 1985). As Simon (1961: 24) argues, individuals behave “intendedly rational, but only limitedly so” since the information received may not be perfect and individuals do not have the time or mental capacity to fully process all available information. Accordingly, firms are unable to maximize utilities (Simon, 1955) and “contracts are normally incomplete” (Lafontaine & Slade, 2007: 649). This leads to satisficing behaviors (Simon, 1959) in the governance of transactions to avoid the unpredictable opportunism of economic actors (Williamson, 1985). Opportunism involves “self-interest seeking with guile” (Williamson, 1985: 47) on the part of agents, implying the potential for deception or incomplete disclosure with regard to either the ability of an agent to fulfill the terms of the contract or the willingness to expend the required effort. Firms will be more likely to prefer hierarchical governance as the possibility of opportunism in transactions increases.

The primary transaction cost element that affects the potential for opportunism and, hence, governance decisions is asset specificity (Williamson, 1975b and Williamson, 1985). High asset specificity in the form of site specificity, physical asset specificity, human asset specificity, or dedicated assets leaves a firm vulnerable to opportunism owing to a lack of alternative exchange partners and/or asset uses (Williamson, 1981). Hence, when asset specificity is high, the cost of governing transactions through market mechanisms may exceed the potential flexibility and production cost benefits of subcontracting. In such cases, hierarchy is expected to be the preferred governance structure and studies have supported this contention (David and Han, 2004, Lafontaine and Slade, 2007 and Poppo and Zenger, 1998).

Because of behavioral uncertainty, opportunism can rarely, if ever, be ruled out completely. As a consequence, management's risk preferences also influence governance decisions (Chiles & McMackin, 1996). Risk preferences develop based on personal and organizational factors (Chiles and McMackin, 1996 and Laughunn et al., 1980) and are defined as the “possibility of loss” (Yates & Stone, 1992: 4). Firms with greater risk aversion are more likely to select hierarchical governance than firms with lower risk aversion.

3. Hypotheses

Family firms are distinctive owing to family involvement in the ownership, governance, and management of the firm as well as their intentions for sustaining family control of the firm across generations (Chua et al., 1999). Yet, we still need a better understanding of how family involvement influences firms' decisions and performance (Chrisman et al., 2005). To contribute to this understanding, we use transaction cost theory to explain how and why the governance decisions of family and non-family firms might differ. We then outline specific antecedents of family firms' subcontracting in more detail.

3.1. Family firms versus non-family firms

Human assets are a key element of asset specificity (Williamson, 1985) and are particularly relevant to the governance decisions of family firms. Human asset specificity is dependent upon both the extent to which job skills are specific to a particular firm and the ease of measuring individual productivity (Williamson, 1981). The nature of the training provided to employees is one indicator of the extent of human asset specificity in an organization (Lafontaine & Slade, 2007). The human capital of family members in a family firm is developed through apprenticeships that differ from those available in non-family firms (Le Breton-Miller & Miller, 2006). “Learning-by-doing” type of training provided by senior family member managers to junior family members starts at home, continues through summer jobs, and extends into their professional careers. This family firm-specific training and experience imparts tacit knowledge and highly specific human assets that are not easily transferable or measurable (Penrose, 1959 and Sirmon and Hitt, 2003).

In addition, family bonds can align interests and lower information asymmetries to decrease governance costs (Lubatkin, Schulze, Ling, & Dino, 2005). Altruism links family members' individual welfare to the welfare of the family and consequently fosters trust, communication, and reciprocity (Lubatkin et al., 2005 and Stark, 1995). When altruism is reciprocal among family business members, opportunism can be mitigated (Chrisman et al., 2005) and this is expected to lead to work environments exemplified by greater employee care, loyalty, trust, and motivation (Habbershon & Williams, 1999). However, when altruism is asymmetrical, family members may have opportunistic tendencies (Schulze, Lubatkin, Dino, & Buchholtz, 2001). Nevertheless, Chrisman et al. (2004) note that such behavior may be consistent with the non-economic goals of family owners and therefore tolerated. Furthermore, those authors have shown

that the economic cost of opportunism is generally lower in family firms than in non-family firms. Family business members are also more likely to identify with the business and perceive a common interest, strengthening their organizational attachment and further reducing the threat of opportunism (cf., Ashforth and Mael, 1989, Corbetta and Salvato, 2004 and Sharma and Irving, 2005).

Overall then, family firms appear to be more able to rely on trust as a governance mechanism to lower transaction costs than non-family firms (Dyer and Handler, 1994, Sirmon and Hitt, 2003 and Steier, 2001). This characteristic suggests that family firms are more likely to select hierarchical governance and in-house production than non-family firms, which face a relatively greater risk of moral hazard and hold-up problems among employees with similar highly specialized training. Therefore, for any given level of asset specificity, the relative trade-off between the cost of external and internal opportunism is more likely to make subcontracting an attractive decision for non-family firms than for family firms.

In family firms, higher levels of ownership concentration have been associated with risk aversion (Schulze, Lubatkin, & Dino, 2002) and the risk aversion tendencies of family business owners have been empirically demonstrated (Romano et al., 2000 and Schulze et al., 2001) especially when a strategic choice threatens the family's ability to maintain transgenerational control of the firm (Gomez-Mejia, Hynes, Nunez-Nickel, & Moyano-Fuentes, 2007). Accordingly, family firms are expected to be conservative in strategic decision making (Ward, 1997). Since the threat of opportunism in market contracting is less easy to control, risk aversion may increase the preferences of family firms for hierarchical governance (cf., Brickley & Dark, 1987).

Thus, differences in human asset specificity, internal versus external opportunism, and risk aversion between family and non-family firms lead to the following hypothesis:

Hypothesis 1

. Family firms are less likely to engage in subcontracting than non-family firms.

3.2. Antecedents of family firms' subcontracting

We now turn our attention from a comparison of family and non-family firms to a discussion of factors that might alter the expected preferences of family firms with regard to subcontracting. Specifically, based on a transaction cost viewpoint, we argue that the availability of subcontractors with kinship ties and cost minimization concerns will positively affect the level of subcontracting. Conversely, we argue that higher levels of importance attached to activities will reduce subcontracting. In other words, when family ties extend beyond the confines of the firm or when economic considerations take on greater precedence, family firms are expected to be more likely to subcontract. In contrast, we expect

subcontracting to be further avoided when the preservation of the unique features and capabilities of the family firm are more highly valued.

3.2.1. Subcontractors with kinship ties

As discussed above, owing to high levels of trust, the threat of opportunism within the firm tends to be lower in family firms than in non-family firms and this may influence the relative attractiveness of hierarchical and market governance. However, the importance of intra-firm trust among family members is mitigated if family firms have the option of subcontracting with firms that are also owned by family members since these potential exchange partners should be considered more trustworthy than non-family suppliers. Thus, the risk of opportunism will be lower if subcontractors with family ties are available.

Furthermore, trust is a social control mechanism that allows complex contracts to be replaced, thereby decreasing the transaction costs of finding exchange partners, negotiating, and monitoring (Gulati, 1995). The ability to utilize social control mechanisms rather than formal polices is also consistent with the personal and particularized approach of family firm governance (Carney, 2005). Finally, family members who own upstream supplier organizations are also likely to possess a greater degree of familiarity with the operations of the family firm, which serves to counteract the family firm's propensity for in-house production owing to human asset specificity.

Therefore, the negative effects of human asset specificity, risk aversion, and threats of opportunism on the subcontracting decisions of family firms will be lowered when subcontractors have kinship ties with the family business members.

Hypothesis 2

. Family firms will be more likely to use subcontractors when subcontractors with kinship ties to family business members are available.

3.2.2. Importance of family firm activities

In addition to human asset specificity, other aspects of the family firm may be highly idiosyncratic and firm specific and such aspects may be a source of competitive advantage (Habbershon & Williams, 1999). High asset specificity can determine the importance of business activities. Williamson (1981) argues that in cases of high asset specificity, both the buyer and the seller prefer exchanges with continuity properties. Indeed, close monitoring and control by family owner/managers can enhance the quality of products or services and build long-term trust, goodwill (Sako, 1991), and reputation (Weigelt & Camerer, 1988) with customers through repeated exchanges (Poppo and Zenger, 2002, Tagiuri and Davis,

1992 and Ward and Aronoff, 1991). On the other hand, subcontracting can lower costs (Lafontaine & Slade, 2007), reduce the need for expensive capital investments or risky borrowing (Eaton & Gersowitz, 1981), and enhance flexibility (Harrigan, 1983).

Nevertheless, difficulties of monitoring subcontractor behavior and performance (Alchian and Demsetz, 1972, Poppo and Zenger, 2002 and Williamson, 1985) can increase the threat of opportunism, which might negatively affect product or service quality and as a result put the family firm's reputation in danger. Maintaining reputation is a valuable intangible asset that can lead to competitive advantages that outweigh contractually promised short-term cost efficiencies that are vulnerable to uncertainties (Leiblein & Miller, 2003). Additionally, family business members' integrity and self-worth are tied to the family business reputation (Dutton et al., 1994 and Smidts et al., 2001). Therefore, family firms may forego the possible benefits of subcontracting when family firm activities are highly important.

Hypothesis 3

. The extent to which business activities are important is negatively associated with family firms' subcontracting.

3.2.3. Cost minimization concerns

The extent of emphasis on economic and non-economic goals (Astrachan and Jaskiewicz, 2008, Chrisman et al., 2005 and Sirmon and Hitt, 2003) differs in family firms. When non-economic goals dominate, family firms may be willing to forego efficiency opportunities that limit their ability to achieve non-economic goals (Chrisman et al., 2005). For example, family firms that attach great importance to non-economic goals such as preserving the family's legacy are less likely to shed unproductive resources and business activities than non-family firms (Sharma & Manikutty, 2005).

On the other hand, in line with the transaction cost principles of "economizing" and determining efficient boundaries through make-or-buy decisions (Williamson, 1981 and Williamson, 1985), when economic goals are more important, family firms may consider alternatives to increase efficiency (Sirmon & Hitt, 2003). An assessment of both production and transaction costs are necessary in make-or-buy decisions (Williamson, 1985). Production cost savings through subcontracting may sometimes outweigh transaction cost inefficiencies, especially when transaction costs are difficult to accurately estimate (Walker & Weber, 1984).

Family firms tend to be parsimonious in the use of assets (Carney, 2005). Those focusing on economic goals are expected to make even greater efforts to improve quality, reduce fixed and variable costs, and elevate flexibility. As subcontracting can help capture these opportunities, family firms that focus more

on economic goals may value the potential reduction of production costs more highly than the potential increase in transaction costs or loss of non-economic benefits. Consequently, cost minimization concerns of family firms will increase their likelihood of selecting the subcontracting alternative.

Hypothesis 4

. The cost minimization concerns of family firms are positively associated with family firms' subcontracting.

4. Research design: data, variables

Cross-sectional data were obtained from a larger project designed to assess the economic impact of the counseling activities of the Small Business Development Center (SBDC) program in the U.S. in 2007. The SBDC conducts programs in each state, serving vast numbers of small and new firms each year. Hence, it represents one of the largest and best potential sources available for studying small firms, most of which are family firms.

Two mailings of a questionnaire were sent to the entire population of 31,613 operating businesses that received five or more hours of counseling assistance from an SBDC in 2005. A total of 6,806 firms responded (21.5%). Unfortunately, the unwillingness of some SBDCs to include the additional questions on subcontracting in their surveys reduced the size of the sample available to analyze. Missing values further reduced the final sample size. A high number of missing observations is not unusual for studies of this type (e.g., Chrisman et al., 2004 and Schulze et al., 2001). As discussed below, after classifying the firms we had 1,790 family firms and 297 non family firms available in our sample. However, in order to conservatively assess if the hypothesized effects are present and not mere artifacts of our large sample size, we utilized a matched sample approach. As the motivation to subcontract could be sensitive to both the organization's size and industry, we matched family and non-family firms based on these dimensions. This left us with 297 family firms and 297 non-family firms for a total sample of 594 firms to test H1. We utilized the 297 family firms in our matched sample to test H2-H4. In addition to the matched sample results, we also report the findings using the full sample of 2,087 firms as robustness tests in the paper.

In order to test for potential non-response biases, responses were divided into early and late respondents based on the time the respondents returned the questionnaire. There were no statistically significant differences between the responses to first and second mailings on the variables of interest to this study. Since relative to early respondents late respondents are likely to be more similar to non-respondents (Kanuk and Berenson, 1975 and Oppenheim, 1966), the tests suggest that non-response bias is not a significant concern in this study.

Since the data were collected via a self-reported questionnaire, the potential for common method variance was present. A test for common method variance suggested by Podsakoff and Organ (1986) were performed. All items were entered into a factor analysis. The rotated solution presented seven factors where the first factor accounted for 17% and the seven factors accounted for 66.5% of the total variance. The tests showed no evidence of common method bias. Unfortunately, due to government regulations pertaining to the use of SBDC data, an independent verification of the self-reported data was not possible.

4.1. Classifying family firms

To test our hypotheses we needed to be able to distinguish between family and non-family firms. To do so, we follow Chua et al.'s (1999: 25) definition of family firms: "a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families." Prior studies have used this definition as a basis for classifying family firms (e.g., Chang et al., 2008 and Chrisman et al., 2007). We followed the same procedure used by those authors. The constructs used to classify family firms included the (1) percentage of the business owned collectively by family members, (2) number of family managers, and (3) expectation that the future successor as president of the business will be a family member, operationalized through a categorical yes–no response. The quick clustering technique in SPSS yielded a dichotomous classification of family and non-family businesses from the 4,167 established firms who provided complete data on those three variables. Consistent with previous research (Chang et al., 2008, Chrisman et al., 2004 and Chrisman et al., 2007), the clustering technique classified 87% of the sample as family firms and 13% as non-family firms. As noted above, missing data and the matching technique further reduced the sample size used for the analysis.

4.2. Dependent variable

The dependent variable, the use of subcontracting, was measured by asking respondents to indicate "the extent to which their firms used subcontractors in 2005–2006" on a 4-point scale ranging from "never" to "extensively." This variable, as well as the subsequent variables were normally distributed unless otherwise noted.

4.3. Independent variables

All independent variables were measured by respondents' agreement with questions regarding subcontracting preferences. A 5-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5) was used. These variables are discussed below.

4.3.1. Subcontractors with kinship ties to the family business member(s)

To measure the importance of kinship ties with subcontractors, respondents were asked the extent to which they prefer to use sub-contractors that are separate businesses owned by members of their family.

4.3.2. Extent to which activities are important

Respondents were asked how much of their activities were too important to subcontract. This item was reverse coded in order to test the hypothesized negative relationship between the importance of the firms' activities and subcontracting.

4.3.3. Cost minimization concerns

In order to measure the cost concern of family firms, we created a 4-item scale. Respondents were asked to rate the extent "they use subcontractors because they are less expensive than doing the work in-house"; "they use subcontractors to avoid making expensive investments in equipment, etc."; "they use subcontractors to avoid hiring employees"; and "they constantly change subcontractors in order to save money". The Cronbach alpha was .70.

4.4. Control variables

We included control variables such as industry, age, size, and perceived past performance because of their possible influence on subcontracting decisions (Dewald et al., 2007).

To control for industry sector, five categorical variables were used to indicate retail, service, wholesale, manufacturing, and construction industries. Age was measured by the number of years the firms had been in business. The number of employees in 2006 was used to measure firm size. Age and size of the organizations were transformed using the natural logarithm in order to ensure normality.

We created a two-item scale to assess perceived performance. Subjects were asked to compare, on a 5 point Likert-type scale, their profitability (return on sales) relative to their expectations and to their competitors over a 3 years period. The Cronbach alpha was .75. Although performance was self-reported, research indicates that subjective and objective performance data are correlated (Dess & Beard, 1984). Furthermore, these measures of performance have been successfully utilized in prior family firm research (e.g., Eddleston and Kellermanns, 2007 and Eddleston et al., 2008).

4.5. Data analysis

We used ANCOVA to compare the level of subcontracting among family and non-family firms (Hypothesis 1). Hypothesis 2, Hypothesis 3 and Hypothesis 4 were tested via Ordinary Least Squares (OLS) Regression, where we checked for multicollinearity concerns. As all VIFs were smaller than 1.5 and the largest condition index was 18.8, we did not consider multicollinearity a problem in our study. The results are presented in the next section.

5. Results

Table 1 provides the means, standard deviations, and correlations of the variables used in the study for both family and non-family firms.

Table 1. Descriptives and correlations.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Use subcontractors	2.37	.81												
2. Retail	.18	.38	-.11*											
3. Service	.19	.40	-.01	-.23**										
4. Wholesale	.07	.25	-.05	-.12*	-.13*									
5. Manufacturing	.20	.40	.06	-.23**	-.24**	-.13**								
6. Construction	.07	.25	.03	-.12**	-.13*	-.07†	-.13**							
7. Firm size (LN)	2.03	1.13	.07	-.17**	-.02	-.05	.30**	.08†						
8. Firm age (LN)	2.27	.77	.03	-.14*	-.06	.00	.30**	-.06	.44***					
9. Perceived performance	2.95	.94	.15**	-.04	.00	-.01	.02	.05	.16***	.10*				
10. Kinship ties with subcontractors	1.77	.95	-.01	.10*	.04	-.06	-.03	.07	-.06	-.08*	.09*			
11. Cost minimization concerns	2.65	.78	.28**	-.03	-.04	.05	.06	.02	-.05	.02	-.05	.24**		
12. Extent of activity importance	2.08	1.23	-.07***	.04	-.05	.01	-.01	.01	-.09*	-.08†	-.04	-.04	-.10*	
13. Family business	.50	.50	-.05	.17***	-.06	-.05	-.05	.03	-.08*	.06	.10*	.11**	-.06	.07†

$N = 594$.

† $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 2 provides the results of the ANCOVA. First, we ensured the appropriateness of the analysis by testing the equality of variances assumption. This assumption was met. The Levine's test confirmed the equality of variances between family and non-family firms ($p = .179$). We then controlled for industry, age, size, and perceived performance. The perceived performance and retail industry variables were associated with the use of subcontractors. More importantly, in support of Hypothesis 1, non-family firms were found to be significantly more likely to use subcontractors than family firms ($p < .01$).

Table 2. Results of ANCOVA.

	Family firms	Non-family firms	<i>F</i> -statistic
Use subcontractors	2.33	2.40	2.69**
Number of firms	297	297	
Levene test covariates			.58
Retail			4.88*
Sales			.70
Wholesale			2.33
Manufacturing			.05
Construction			.00
Firm size (LN)			.12
Firm age (LN)			.03
Perceived performance			12.39***

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3 presents the results of the OLS regression models with the degree of subcontracting by family firms as the dependent variable. Model 1 is the base model where we entered the set of control variables. The regression model was not significant ($p > .10$). Only the perceived performance and the retail industry variables were significant ($p < .05$) with an adjusted R^2 of .02. In model 2, we entered the independent variables. The change in R^2 was .12 and significant ($p < .001$). The adjusted R^2 of the model was .13. The regression provides support for both Hypothesis 3 (importance of family business activities) ($\beta = -.12, p < .05$) and Hypothesis 4 (cost concerns) ($\beta = .34, p < .0001$). However, Hypothesis 2 was not supported as the relationship between subcontractors with kinship ties and the use of subcontractors was marginally significant ($p < .10$) in the opposite direction of our hypothesis.

Table 3. Results of OLS regression models.

	Model 1	Model 2
Controls		
Retail	-.07*	-.07
Service	.02	.01
Wholesale	.00	-.02
Manufacturing	-.01	-.03
Construction	.02	.01
Firm size (LN)	.02	.05
Firm age (LN)	.05	-.01
Perceived performance	.16**	.19**
Independent variables		

	Model 1	Model 2
Kinship ties with subcontractors		-.10 [†]
Cost minimization concerns		.34 ^{***}
Extent of activity importance		-.12 [*]
<i>F</i> -value	1.59	5.06 ^{***}
<i>R</i> ²	.04	.16
<i>R</i> ² change		.12 ^{***}
Adjusted <i>R</i> ²	.02	.13

$N = 297$.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

In a post hoc test, we re-ran our results for the full sample (1970 family firms and 297 non-family firms). The ANCOVA showed that non-family firms were significantly more likely to use subcontractors than family firms ($p < .01$). The regression model using the full sample was significant with an adjusted R^2 of .11 ($p < .001$). More importantly, the regression results confirmed Hypothesis 3 ($\beta = -.11$, $p < .001$) and Hypothesis 4 ($\beta = .32$, $p < .0001$) but not Hypothesis 2. Therefore, our results appear to be robust.

6. Discussion

Our study advances the development of a theory of the family firm by providing some initial answers to two important research questions based on the precepts of transaction cost theory: (1) Are family firms more or less likely to use subcontractors than non-family firms, and (2) What are the determinants of subcontracting in family firms? Overall, our ANCOVA results suggest that family firms tend to rely less on subcontractors than non-family firms. Furthermore, using transaction cost theory, we suggested a number of economic (and non-economic) reasons why such reliance may be justified.

The relative importance of economic and non-economic goals is partially addressed by our OLS regression results that suggest family firms will increase the use of subcontractors when cost concerns dominate decision making. On the other hand, family firms will avoid using subcontractors when the firm's activities are considered of primary importance to the nature of the business. Thus, family firms appear cognizant of the idiosyncratic combination of family and business resources they possess and take measures to preserve the advantages that those resources provide. This recognition may be one of the key factors in determining the ability of family firms to attain competitive advantages over nonfamily firms (Carney, 2005 and Habbershon and Williams, 1999). Importantly, both of the results are consistent with the principles of transaction cost theory, suggesting that use of this theory in future research on family firms may yield important insights.

It is important to note, however, that the results for the kinship determinant were in the opposite direction as hypothesized although the relationship was only marginally significant. The reason for this unanticipated result may be that for the family firms that would prefer family subcontracting, the option is generally unavailable. If subcontracting is important but the option of using family subcontractors is lacking, subcontracting may occur anyway. On the other hand, if the option is less important than other factors, as the variable mean and regression beta suggest it is for the majority of respondents, then family firms' subcontracting decisions will primarily depend upon other considerations. Apparently, for the majority of the firms in our sample, the willingness to subcontract is primarily based on other considerations such as costs and asset specificity rather than kinship ties. However, further testing of this relationship is needed.

Our study contributes to the literature in several ways. First, this article is one of the few attempts to use transaction cost theory to explain some of the differences in the governance decisions of family firms versus non-family firms. Particularly, the involvement of the family firm in make-or-buy decisions seems to be partially determined by the relative importance of cost control and partially determined by the idiosyncratic family and business resources they possess. Second, our hypothesis that human asset specificity, greater concerns for external versus internal opportunism, and a greater tendency for risk aversion lead family firms to engage in subcontracting less than non-family firms is supported. As such, this research not only adds to our understanding of family firm governance, but also provides a more nuanced understanding of the governance trade-offs facing all firms. Both of these contributions move us a step closer to a theory of the family firm (Chrisman et al., 2005 and Conner, 1991).

6.1. Limitations and future research directions

Our study has several limitations. First, the sample includes firms that are relatively small and may not be able to exploit the full benefits of subcontracting due to their scope of operations. Hence, future studies should explore the effects of transaction cost factors on subcontracting in larger family firms. For example, subcontracting may be a valuable opportunity for family firms which diversify and expand. Second, the data collection was cross-sectional in nature and we cannot determine causality from our observations. Thus, we encourage future studies to utilize longitudinal research designs. Third, although our analysis suggested that common method bias was not a problem (Podsakoff & Organ, 1986), multiple sources of objective and perceptual data would improve the design of future studies. Fourth, some of the constructs were assessed via single-item scales. The development of specific multi-item constructs to further assess the content domain investigated in our study would be useful. Fifth, our overall model only explains 16% of the variance (13% of the adjusted variance), and our three identified independent variables explain only 12% of that variance (11% of the adjusted variance). However, the amount of additional variance explained by the independent variables is not only consistent with much prior research, but also of practical and statistical significance, where the threshold is often considered 1% (see also Aguinis, 2004 and Chrisman et al., 2009).

In addition to addressing the limitations of this study there are several other avenues for future research that should be considered. Aside from the antecedents of family firms' subcontracting decisions that we have pointed out in this article, there may be other determinants that affect governance decisions in family firms such as the extent to which the family firm utilizes professional management structures (Dyer, 1988). Future research might also investigate whether the propensity to subcontract varies according to the ownership, business, or family life-cycle stages of family firms (Gersick, Davis, Hampton, & Lansberg, 1997).

Furthermore, as suggested above, the existence of non-economic goals might alter how transaction cost factors influence the efficient boundaries of family firms. In our study, cost minimization concerns were the primary driver of subcontracting decisions. This suggests how the relative importance of economic factors can change the general preferences of family firms from hierarchical to hybrid and/or market modes of governance. However, wealth creation may not be the primary goal of all family firms (e.g., Chrisman et al., 2003a and Chrisman et al., 2003b). Indeed, previous research suggests that the preservation of socioemotional wealth through attaining noneconomic goals such as family harmony may be valued more in some family firms (Gomez-Mejia et al., 2007). Future studies can help clarify how non-economic goals affect the governance decisions of family firms.

Finally, although we alluded to the interplay of internal and external forms of opportunism in our article, future research should investigate more thoroughly how they collectively affect family firm governance decisions. For example, the relative lack of internal opportunism in family firms may reduce agency costs to the extent that the efficient boundary between the choice of markets and the hierarchies shifts toward the latter whenever the family form of governance is a viable option. Since this would mean that the transaction costs of family firms would be lower, holding all else equal, it would help explain the numerical dominance of family firms in the world economy. As such, a more comprehensive study of how governance decisions are influenced by the interplay of transaction costs, agency costs, altruism, and non-economic goals in family firms would provide interesting insights.

In conclusion, we adopted and tested a transaction cost perspective of family firm governance with respect to subcontracting decisions. Our research can be seen as a first step in applying transaction cost theory to understanding family firm decision making. Since transaction costs can significantly influence a family firm's governance decisions and governance decisions will influence the ability of family firms to achieve their economic and potentially, their non-economic goals, we hope our study will inspire further efforts to inform family firm owners and managers on how to make more effective governance decisions.

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