Knowledge Transfer and Family Influence: Effects on Innovation and Performance

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Abstract

This study analyzes how family firms promote behavior that share and transfer knowledge among its members with the aim of improving innovation orientation and overall performance. A model of knowledge transfer and family influence is developed and tested on data from 109 small and medium-sized family enterprises in Chile. The construction and validation of the model follows Anderson and Gerbing’s two-step Structural Equation Modeling methodology. The results of the validation show that family influence plays a fundamental role in knowledge transfer, which in turn has a statistically significant impact on innovation. Implications for theory and practice and how they may provide possible competitive advantages for family firms are also discussed.

Keywords: Family Influence, Knowledge Transfer, Innovation, Performance

Data Availability: Data is available upon request

1. Introduction and Purpose

The advantages and disadvantages of family firms have been the subject of various studies. On the advantages side, Miller & Breton-Miller (2006) argue that the multiple roles played by family members as managers as well as owners makes for rapid and flexible decision-making and that family ownership and control have a positive effect on agency costs. This latter point stems from the agency theory of Jensen & Meckling (1976), which holds that family firms perform better than non-family firms because their greater concentration results in lower agency costs of monitoring and thus mitigates the free-rider problem. According to this view, family directors look beyond the merely short-term economic interests of the company to its long-term strategy (Gallo & Sveen, 1991).

These characteristics differentiating family from non-family firms constitute what Habbershon & Williams (1999) have called “familiness”, which they define as a set of resources peculiar to the business that are attributable to the presence of the family in company management. These resources and capabilities are unique, inseparable and synergetic. They derive from the family’s involvement and interaction with the business and are a source of long-term competitive advantage (Zellweger, Eddleston & Kellermanns, 2010).

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As regards disadvantages, some believe that family businesses are inefficient when it comes to the ability to innovate (De Massis, Frattini & Lichtenthaler, 2012). Verganti (2009) and Tidd, Bessant & Pavitt (2005) have countered this view with successful cases such as the Italian family firms Alessi (a producer of kitchen utensils) and Benetton Group (Treviso-based global fashion brand), both of which have strongly anchored their competitive strategies in radical product innovation. But family-owned businesses often lack infrastructure capabilities such as technology or appropriate management techniques, weaknesses that can lead to inferior performance, and many of the resource constraints faced by SMEs are found in family firms (Astrachan, Zahra & Sharma 2003; Eddleston, Kellermanns & Sarathy 2008; Klein 2000).

These particular traits of family firms are also reflected in the way knowledge is transmitted internally. This is a central issue given that knowledge and values unique to the family are often what drive the growth and development of family firms over the generations. The transmission of knowledge from the family to the firm is one of the key contributors in developing a family company’s competitive advantages, and adds to the positive impact of familiness (Lorenzo & Núñez-Cacho, 2012).

The present article aims to contribute to the literature on family firms in three ways: First, by bolstering recent research on managing knowledge and innovation in family firms and their impact on performance (Price, Stoica & Boncella 2013; Schillaci, Romano and Nicotra 2013; Chen, Tsao, & Chen 2013; Kraus, Pohjola & Koponen 2012); second, by improving our understanding of how family influence affects innovation, knowledge management and performance; and third, by basing our analysis on data from family firms in a Latin American country (Chile), the first time we believe this has been done in a published work.

2. Methodology and Data Set

Family influence in a company can be conceptualized and measured in different ways. Klein, Astrachan & Smyrnios (2005) have defined it quantitatively as the shares of ownership, top management positions, and seats on the board of directors held by the family. Others maintain that it depends on ownership dispersion among the different family generations and family member reciprocity. While the founding generation focuses on consolidating the firm’s position in the local market, the second generation is more open to changes and flexibility in decision-making, demonstrating that family influence and generational change offer new opportunities for creating value and regenerating the company (Kellermanns, Eddleston, Sarathy, & Murphy 2012; García-Tenorio & Sánchez 2009).

Management of knowledge, and more specifically, the exchange of knowledge between persons, is a form of organizational innovation that can generate new ideas and develop new business opportunities through socialization and learning processes (Bartol, Liu, Zeng & Wu 2009). Seidler de Alwis & Hartmann (2008) conclude that organizations which promote knowledge exchange and transfer processes tend to be successful in organizational innovation.
This is not always the case, however, and when it is not, the firm’s performance may not live up to expectations (Hsu, 2008).

Various researchers find that family firms have an enormous advantage given that family employees conduct their lives as a unit in the business as well as in family. Non-family employees, by contrast, often resist sharing information, especially tacit knowledge (Ardichvili, 2008). Other studies focusing on the transfer of implicit knowledge, work in networks and social capital development as the factors that translate into competitive advantage for family firms (Navarro de Granadillo, 2008).

In the present study our principal goal is to analyze what characteristics possessed by a family firm and its family-member employees promote behaviors that share and transfer knowledge between them and non-family employees, customers and suppliers, and how this knowledge can improve the firm’s innovation and performance. According to the literature we reviewed there is a high degree of consensus that family influence impacts on innovation and the way family firms manage information. Our task is therefore to investigate whether the results of these studies apply to the reality of Chilean family enterprises.

Our methodology is built around a model of knowledge transfer within family firms that represents a system of theoretical relationships between the four main constructs whose linkages we attempt to specify: (1) knowledge transmission, (2) innovation, (3) family influence, and (4) performance. The relationships between these constructs are expressed in terms of five hypotheses stated formally below and depicted in Figure 1.

\[ H_1: \text{Family influence moderates knowledge transmission within the firm.} \]
\[ H_2: \text{Family influence moderates the innovation relationship within the firm.} \]
\[ H_3: \text{Knowledge transmission within the firm positively influences innovation.} \]
\[ H_4: \text{Knowledge transmission within the firm positively influences firm performance.} \]
\[ H_5: \text{Innovation positively influences firm performance.} \]

To determine whether these theoretical relationships are borne out by the Chilean data, we estimate the model using the two-step structural equation modeling approach (Anderson & Gerbing, 1988) and factor analysis, affording a statistical methodology we consider to be more robust than that employed in previous studies.

[Insert Figure 1 here]

The data used to test the model’s hypotheses are drawn from a database of 109 Chilean family firms created by the Centro de Investigación Cuantitativa en Negocios at the University of Chile. The average age of these businesses was 39 years. To be included in the database a firm had to be controlled by a single family (i.e., with an ownership more than 50%) and have an
official Board of Directors or be in the process of appointing one. The average number of board members of the firms was 5.1. Five of them (4.6%) were listed on the Santiago Stock Exchange while the rest were privately held. In 91% of cases, the CEO was a member of the controlling family, and 8.2% had a Family Council. Of the 761 directors, senior managers and other executives at these firms, 14% responded to the survey conducted for this study between July and November 2013.

For each of the four constructs in our model (family influence, knowledge transmission, innovation and performance) a group of factors were defined as shown in Table 1. To gather information on these factors, the above-mentioned survey contained 38 questions divided into 4 sections. The questions were designed to be answered on a Likert scale of 1 to 7, where 1 is “strongly disagree” and 7 is “strongly agree”.

[Insert Table 1. here]

3. Results and Discussion

The testing of our model found that four of the hypotheses were confirmed at a statistically significant level while the fifth was partially supported. The detailed test results are set forth in Table 2 and may be summarized qualitatively as follows:

- **H1**: It was demonstrated with $p \leq .001$ that families influence the firms they control by moderating knowledge transmission between family members and others (employees, customers, suppliers).
- **H2**: There exists a positive and direct relationship between the degree of family influence and management of innovation (statistically significant with $p \leq .05$).
- **H3**: It was confirmed that greater knowledge transmission promotes innovation.
- **H4**: It was partially demonstrated (i.e., the correct sign, but not statistical significance) that better knowledge management leads to better performance indicators.
- **H5**: It was confirmed that innovation practices positively influence firm performance.

The proposed model shown in Figure 1 in its theoretical form is presented as confirmed by these results in Figure 2.

[Insert Figure 2 here]

**Conclusions.** This study demonstrated the existence of a strong relationship between innovation and performance in Chilean family firms. These results support the findings of recent research on family businesses by Kellermanns et al. (2010) and by Naldi, Nordqvist, Sjoberg, & Wiklund (2007), who found positive relationships between innovation capability and performance. Knowledge management was identified as a key variable in innovation by these
companies. We therefore conclude that performance is influenced by innovation resources and knowledge. As regards degrees of family influence as a moderator of knowledge management and innovation, our results support previous studies to the effect that family firms intervene significantly through ownership and the direct involvement of family members. Our findings are conclusive that family influence moderates all of the relationships positively, and is statistically significant when it moderates the relationship between knowledge transmission and innovation.

The theoretical implications of our research provide firm support for the idea that family firms are geared to innovation and successful management of knowledge resources. The relationship between innovation and performance in family firms depends on their knowledge-based capabilities and the processes involved in knowledge acquisition and management.

Practical implications. By establishing a relationship between knowledge, innovation and degree of family influence, our results suggest that family firm owners and senior managers should aim to manage these resources efficiently and pay particular attention to the processes involved in a variety of factors such as the acquisition of new knowledge for its implementation in the form of new products and services. Families that are able to influence decisions relating to knowledge management and innovation tend to achieve higher levels of performance.

As regards the limitations of this study, the global goodness-of-fit of the model may have been affected by the omission of relevant variables. Also, the structural equation model assumes the relationships between the variables are linear when in fact they may not be.
Figure 1: Theoretical Knowledge Transfer Model showing Hypothesized Relationships between the Constructs

Table 1: Factor Analysis for Each Model Construct.

**Family Influence**
1. Current generation of the firm
2. Percentage of senior management positions occupied by family members
3. Percentage of family ownership

**Knowledge Transmission**
1. Trust among family members
2. Commitment to the family firm
3. Intensity of relationships
4. Company culture
5. Decision-making

**Innovation**
1. Innovation budget
2. New products/processes
3. Innovation projects currently in progress

**Performance**
1. Net benefit
2. Growth in sales
3. Growth in net equity
Table 2: Structural Equation Modeling Results for Hypothesized Relationships between the Constructs

<table>
<thead>
<tr>
<th>Description of Path Hypotheses</th>
<th>Standardized Path Coefficient</th>
<th>Hypothesized Direction</th>
<th>Hypothesis supported?</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Family influence moderates knowledge transmission within the firm</td>
<td>0.016***</td>
<td>+</td>
<td>Yes</td>
</tr>
<tr>
<td>H2: Family influence moderates the innovation relationship within the firm</td>
<td>0.640*</td>
<td>+</td>
<td>Yes</td>
</tr>
<tr>
<td>H3: Knowledge transmission within the firm positively influences innovation</td>
<td>0.361**</td>
<td>+</td>
<td>Yes</td>
</tr>
<tr>
<td>H4: Knowledge transmission within the firm positively influences firm performance.</td>
<td>0.749</td>
<td>+</td>
<td>Partially supported</td>
</tr>
<tr>
<td>H5: Innovation positively influences firm performance</td>
<td>0.041*</td>
<td>+</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*** p ≤ .001, ** p ≤ .01, * p ≤ .05; one-tailed tests; maximum likelihood estimation for coefficients

Figure 2. Knowledge Transfer Model showing Statistical Results for Hypothesized Relationships between the Constructs

*p < .05, **p < .01, ***p < .001
References


