

# Does Family Governance Encourage Innovation?

Christiane Bughin\*

Olivier Colot\*\*

## Abstract

*Starting with the fact that family companies have higher financial performances as well as market predominance, the purpose of this paper is, first, to determine whether the particular governance structure of family businesses leads to higher innovation performances, and then, to assess the link between innovation and the financial performances of these companies. The governance of family companies – where the family owns and manages the company - induces different objectives in regard to the classical scheme of profit maximization. Indeed, the development of specific family resources, associated with a long term strategic vision, could be favorable to innovation. The empirical study was based on a sample of large Belgian companies' family and non-family. Multiple linear regression models were used to measure innovation discrepancies, and the influence of these differences on the financial performance of family businesses. Firstly, the results show a positive and significant relation between innovation, in terms of patents and R&D, and global financial profitability. This emphasizes the explanatory power of innovation regarding financial performance of organizations. Secondly, our study demonstrates a positive and significant relation between financial profitability and a company's investments in R&D and patents. However, we cannot assert that family companies are significantly more active in R&D, even if it is the case in our sample. The study concludes that even if family companies are not necessarily more innovative, their governance structure enables them to generate more profitability from innovation performance, long term orientation and social components - such as cooperation or communication which allows them to allocate their innovative resources strategically and effectively.*

**Key words:** Governance, family company, innovation, performance.

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\* Christiane Bughin, Professor at the University of Mons, Belgium.

\*\* Olivier Colot, Professor at the University of Mons, Belgium.

## 1. Introduction

As they are the most prevalent form of companies in the private sector, family companies play a significant role in the economies of most countries, and account for between 50 and 90 percent of the gross domestic product of all market economies. Family companies are a very important form of business for many countries' economies, and even represent up to 90 percent of the gross domestic product of some market economies (Kenyon-Rouvinez and Ward, 2004). This market predominance, associated with the reputation of high financial performance, in terms of profitability, make these companies a major subject of study.

However, the underlying mechanisms of the superiority of family companies are not well known. An important center of interest is the specific mode of governance of these companies, in its most traditional conception, when the family owns and manages. This mode of governance can be summarized by two principal features: personalism and particularism (Chrisman et al., 2006). Personalism, due to the concentration of ownership and management within the family, enables family businesses to have full freedom of decision and action. This high degree of freedom induces particularism, which is the capacity to establish objectives that are different from the classical scheme of profit maximization inherent to non-family companies.

Family governance could therefore be favorable to a long term strategic vision and to the development of specific family resources, such as innovation investments- aimed to develop sustainable competitive advantages (Anderson and Reeb, 2003; Carney, 2005; Le Breton-Miller and Miller, 2006; Habbershon, 2007). As innovation is known to be the basis of competitiveness, profitability, and growth, it is likely to explain the over-performance of family companies.

In Section 1 of the paper some facts behind family companies' over-performance, as well as the classical underlying justifications in terms of governance, innovation is presented as a potential explicative factor. Section 2 describes the components of the theoretical profile of family companies in terms of governance. Section 3 discusses the data and methodology. Finally,

section 4 reports the results and main findings of the paper examining innovation discrepancies, and the influence of these on the financial performance of family companies.

## **2. Family Companies: What Do We Know?**

Even though family companies are predominant worldwide, this type of business can not be clearly defined, either using specific legal forms, or by using the size criteria. Therefore, definitions are numerous, heterogeneous, and include many qualitative elements. The choice of these criteria is arbitrary, but three of them are recurrent in the literature: the family capital ownership, the active participation of the family in the company's management, and the willingness to hand the company on to the next generation.

### ***2.1 The Over-Performance of Family Companies***

According to many studies, family companies have the reputation of generating higher performance because of their own specificities. Allouche and Amann (1997) highlighted the much higher average profitability of family firms (in terms of shareholder profitability and general profitability) with regard to their non-family equivalent. Moreover, Jorissen et al. (2002) showed that family businesses have higher return on assets (ROA) and return on equity (ROE) ratios than non-family firms. Also, Anderson and Reeb (2003) conclude that American family companies are significantly more profitable in terms of ROA, and that they represent a higher market value (Tobin Q)<sup>1</sup>. Finally, other recent studies demonstrate that family firms are associated with a better financial situation in terms of profitability, liquidity and solvability (Allouche et al, 2006; Maury, 2006)

However, some studies do not reach the same conclusion. According to Markin (2004), Klein et al. (2004) and Kowalewski et al. (2007), the family character does not significantly influence firms' value or economic profitability. The reason given by Carney (2005) is nepotism, as well as scarce access to the job market and capital market.

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<sup>1</sup> Tobin Q is the ratio between the market value and replacement value of the same physical asset

## **2.2 Classical Tracks of Governance**

Despite the conflicting results evoked above, empirical studies, as well as conceptual arguments, mainly support the superiority of family enterprises in terms of performance and profitability. These companies have demonstrated the ability to build and maintain a strong sustainable competitive position (Habbershon and Pistrui, 2003). This ability to out-perform non-family companies is often explained by the ownership structure of family companies that induces a specific mode of governance. Indeed, the ownership structure of these firms is characterized by an important concentration of capital within the leading family, and implies a convergence of interests as well as a decrease in agency costs.

On one hand, studies including (Barnhart and Rosentein, 1998; Baghat et al., 1999; Gorton and Schmid, 2000; Chen, 2001) confirm the theory of interest convergence proposed by Charreaux (1991), and originally supported by Berle and Means (1932) and Jensen and Meckling (1976). According to this theory, as the percentage of capital held by the manager increases, conflicts decrease and the gap between the objective of profit maximization decreases, implying that the firm's performance improves.

On the other hand, family businesses experience significantly lower agency costs (Schulze et al., 2001; Markin, 2004; Maury, 2006). This "natural" privilege of family companies could explain the origin of their competitive advantage (Daily and Dollinger, 1992).

## **2.3 Family Governance and Innovation**

Other implications that emerge from the concentration of ownership and control within the family: include personalism and particularism. Personalism is associated with the total liberty of decision and action of family firms. Particularism is induced by personalism, and expresses the capacity of family enterprises to establish objectives that are different from the classical scheme of profit maximization, inherent to non-family companies (Chrisman et al., 2006). The point is about social, cultural or management specificities that remain generally unknown and confined in a conceptual concept. Among these specificities, innovative capacity is of

particular interest, as the literature on sources of competitiveness identifies innovation as a prerequisite of firms' survival.

### **3. Innovation, Catalyst of Competitiveness and Performance**

An innovation, by and large, can be defined as a novelty associated with the processes, structures, products or services, introduced inside the organization, and also a source of differentiation and value addition (Taneski et al., 2003).

#### **3.1 Innovation Contribution to Competitiveness and Performance**

Defined as such, at the confluence of the literature on firms' competitiveness and performance determinants, innovation is considered as an inescapable precondition. In terms of competitiveness, many empirical studies have demonstrated a strong relation between innovation and market share. These studies support the classical organizational theories like contingency theory, *Resources Based View* (RBV), which states that firms' subsistence depends on their ability to adapt in a competitive and economically unstable environment (Tanewski et al., 2003). In terms of performance, there exist extensive literature that recommends the use of strategic performance measurement systems (SPMS), derived from organizational strategy. Therefore, innovation appears to be a fundamental component of these multidimensional models which contribute to the firms' financial and market performance (Evans, 2004; Chenhall, 2005).

These contributions inspired many empirical studies that, for the most part, considered innovation in two different ways: the *inputs*, evaluated on the basis of R&D expenses, and the *outputs*, based on the company's patents and on the turnover resulting from its innovation policy. The conclusion of these studies conducted by Klomp and Van Leeuwen (2001), Parisi et al. (2002), Cainelli et al. (2006), and Loof and Heshmati (2006) is that innovation contributes to sales growth, profitability, and productivity. Therefore, the first hypothesis of this study is:

**Hypothesis 1:** There is a positive relation between companies' innovation intensity and financial performance.

### **3.2 Innovation Determinants: Strategy and RBV**

In this domain, the subject of the influence of strategy on innovation has been widely studied. Firstly, the choice of a company to adopt demarcation strategy as compared to its competitors is reduced in strategic plans like innovation. Secondly, this type of strategy induces the adoption of organic organizational structures that are themselves favorable to innovation (Ozsomer et al., 1997; Tanewski et al., 2003).

Furthermore, it is also known – under the *Resources Based View* – the availability of resources condition the characteristics of organizations, notably in terms of innovation (Barney, 2001).

Thus, several factors, classically related to strategy and to resources, seem to be favorable to the development of innovation policies: market conditions, technological opportunities, degree of diversification, strategic planning, and activity sector. Company characteristics such as size, age, past financial performance or product life cycle are also integrated in the explicative models of innovation behaviors (Klomp and Van Leeuwen, 2001; Loof and Heshmati, 2006). On the basis of these determinants of innovation, it is proposed to describe the components of theoretical profile of family companies – in this case, in terms of governance — favorable to the establishment of innovation policies.

### **3.3 Family Governance, Strategy and Innovation**

The family form of governance is fundamentally different from the managerial form. This difference is at the origin of social, cultural and managerial specificities from which innovation may come. The existing literature suggests that family companies tend to have limited growth. The reason given is that these firms are more likely to be over-conservative and avoid investments in risky projects rather they are focused on non rational family problems (McCann et al., 2001; Tanewski et al., 2003; Daily and Dollinger, 1992).

However, different arguments related to the family mode of governance, have recently been proposed in favor of an existing long term orientation in

family companies, itself propitious to innovation. Indeed, the manager-owner in classical governance, who stays in his/her position for a long time, is free (personalism) to be concerned about the interests of the next generations and to define non-financial missions, arising from his/her paternalistic interest, aimed at the wellbeing of the family and non-family *stakeholders* (particularism). The strategic context of family companies look, therefore, particularly favorable to the development of innovation (Carney, 2005; Habbershon, 2007; Le Breton-Miller and Miller 2006; Kellermanns and Eddleston, 2006).

Mc Cann et al. (2001) have demonstrated, on a sample of 231 family companies located in the state of Washington that 42 percent of these are characterized by long term strategic priorities, and describe themselves as “prospectors”<sup>2</sup>. Tanewski et al. (2006) also confirms the prospective orientation of family firms. Moreover, Naldi et al. (2006) demonstrate that risk taking is positively linked to innovation and constitutes a separate dimension from the entrepreneurial orientation of family companies.

### ***3.4 Family Governance, Resources and Innovation***

Karra et al. (2006) show that the traditional family mode of governance (personalism and particularism) contributes to the development of a specific social capital<sup>3</sup>, which constitutes an important resource that, can lead to the development of distinctive advantages, in terms of innovation (Eddleston et al., 2008; Habbershon, 2008). Craig and Moores (2006) also observe that family companies have a higher degree of innovation which could be possibly due to better internal communication practices. Thus the second hypothesis of the study is:

**Hypothesis 2:** Family companies are more innovative than non-family companies.

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<sup>2</sup> Strategy described by Miles and Snow as the strategy of innovative companies that take the necessary risks to the production of new products and services.

<sup>3</sup> Altruism extended to customers and employees, family culture facilitating cooperation and communication.

In accordance with the research carried out on the subject of RBV, the possession of family resources is not enough: strategic planning as well as environment can also affect the magnitude of transformation of family resources into their performance (Eddleston et al., 2008). At the level of strategic planning, it is to be noted that the long term orientation of family companies allow them to strategically allocate their resources to innovation and risk-taking. At the level of the influence of an uncertain and turbulent environment, the optimization of resources is facilitated inside the family companies that encourage cooperation and collaboration in a perspective of quick adaptation to changes<sup>4</sup>. In other words our third hypothesis is:

**Hypothesis 3:** Family companies generate more profitability from their innovation performance.

#### **4. Data and Methodology**

##### ***4.1 Sampling***

Our targeted population constituted large Belgian companies, both family and non-family, employing more than 250 workers. Financial companies and public companies have not been selected. In order to avoid cross participations, companies held for more than 20 percent by other firms have been set aside. Companies characterized by foreign shareholding have also been rejected. Thus, our targeted population constitutes 120 large Belgian companies. Among these, a family company is considered as the one where more than 50 percent of the company's shares belong to the family<sup>5</sup>. The criterion of the influence on the company management was also taken into account in order to match with the traditional concept of governance studied in this paper: concentration of ownership and management within the

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<sup>4</sup> Of course, the profitability objective in family companies depends on the values and believes of families, or the expected outcomes of innovation.

<sup>5</sup> Consultation of the management reports at the Belfirst database. Belfirst is a financial database that includes the annual accounts of Belgian companies that are subject to the deposit obligation to the Belgian National Bank, as well as statistics and information about the shareholding, among other things.



family. Finally, a stratified random sampling was performed according to the family criterion<sup>6</sup> and to the activity sector (four meta-sectors have been constituted: services, trade, industry, and construction).

Thus, on the basis of this methodology, and because of the difficulties encountered in gathering of data, notably about the family character, the sample is finally constituted of 45 large companies, 24 familial and 21 non-familial.

#### 4.2 Sample Statistics

Several observations can be made from the data reported in table 1:

- The average age of family and non-family companies is very close;

Table 1  
Sample Statistics

	Family Companies (24)		Non-family Companies (21)	
	Average	Standard Deviation	Average	Standard Deviation
		General characteristics		
Age, in years	28.5	19.556	27.67	20.514
Total Assets (2006), in thousand €	48.087	37.511	170.075	216.056
		Innovation		
R&D + Patents / Fixed Assets	0.055	0.093	0.028	0.038
		Financial performance		
Gross margin on sales (average 2004-2006)	6.513	4.470	6.127	4.199
ROA (average 2004-2006)	14.446	8.660	11.221	7.351
ROE (average 2004-2006)	17.407	42.909	14.220	20.488
Cash flow / stockholders Equities (average 2004-06)	50.413	53.223	24.702	84.706
Turnover/employee (average 2004-2006)	304.006	311.832	616.288	572.720
		Sector (frequency of observations)		
Industry		13		11
Construction		1		2
Trade		3		5
Services		7		3

<sup>6</sup> Slightly more than 50 percent of large Belgian companies are family companies (Donckels and Aerts, 1993).

- Family companies are more active in innovation in terms of R&D and patents;
- Non-family companies have a much higher turnover due to their bigger size. However, the average profitability of family companies (financial, economic and commercial) is superior to that of non-family companies. This is consistent with a large amount of empirical literature that establishes the over-performance of family companies.

### ***4.3 Econometrics Models***

The hypotheses stated above are tested. The models have the following generic form:

$$y = \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k + \mu \quad (1)$$

Where,

$y$  is the vector that measures the value of the dependent variable;

$x_1$  is the unit vector that measures the eventual constant factor;

$x_2 \dots x_k$  are the vectors that measure the value of the independent variables;

$\beta_i$  are unknown parameters to estimate (for  $i$  between 1 and  $k$ );

$\mu$  is a random variable vector (error term).

## **5. Results**

The analysis of correlation coefficient among explicative variables did not reveal any important multicollinearity problem. The homoscedasticity hypothesis of the error terms was also checked for each model.

### ***5.1 Relation between Innovation and Financial Performance***

In reference to hypothesis 1, the objective of the model is to test the relation between the innovation performance and the financial performance of our sample companies. The variable measuring innovation is estimated as the ratio (average of the period 2002-2004) of total R&D expenses plus patents, to total fixed assets. This variable has the advantage of

simultaneously approaching the extent of the *input* (R&D expenses) and the *output* (patents) of innovation within all of the fixed assets of the company. The innovation performance (average 2002-2004) is therefore felt to be explicative of the future financial performance (average 2004-2006), as symbolized by the turnover of employees (variable Turnover – model 1), and of the global financial performance (variable ROE – model 2). The control variables considered are the total assets (Size) and the activity sector (Industry, Trade, Construction and Services as binary variables).

Table 2  
Results of the First Model (Relation Between Innovation and Turnover)  
R<sup>2</sup> adjusted: 0.267 – Sign. F: 0.004

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	55.174	158.456		.348	.730
	Industry	239.819	160.603	.254	1.493	.143
	Construction	273.406	276.728	.145	.988	.329
	Trade	638.241	205.157	.518	3.111	.003
	Innovation	-133.731	728.701	-.025	-.184	.855
	Size	.001	.000	.434	3.328	.002

a Dependent Variable: Turnover

b The binary variable Services is removed from the model to avoid perfect multicollinearity.

Table 3  
Results of the Second Model (Relation Between Innovation and ROE)  
R<sup>2</sup> adjusted: 0.202 – Sign. F: 0.016

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
2	(Constant)	36.919	11.802		3.128	.003
	Industry	-29.495	11.962	-.438	-2.466	.018
	Construction	-30.879	20.611	-.229	-1.498	.142
	Trade	-27.505	15.280	-.313	-1.800	.080
	Size	-3.13E-005	.000	-.137	-1.005	.321
	Innovation	108.298	54.274	.287	1.995	.053

a Dependent Variable: ROE

b The binary variable Services is removed from the model to avoid perfect multicollinearity.

Globally, the two models have a good quality of adjustment, and are significant at the 1 percent threshold. More specifically, table 2 shows that the turnover per employee is negatively, but non significantly, influenced by innovation efforts. Also, the innovation efforts have a positive and significant influence (at the 5 percent threshold) on the global financial profitability of the companies (family and non-family, table 3). We can deduce that large Belgian companies direct their R&D and patent acquisition policies to process innovation, that do not necessarily improve sales, but that tend to decrease costs and lead to an improvement of global profitability. Other authors highlight similar results; that turnover is not necessarily improved by innovation performance (Loof and Heshmati, 2006) while profitability improves (Crepon et al., 1998; Klomp and Van Leeuwen, 2001). In conclusion, the existence of a positive and significant relationship between innovation and financial profitability is confirmed. Therefore, innovation could explain the over-performance of family companies.

### ***5.2 Relation Between Innovation and Family Governance***

In reference to hypothesis 2, the third model is aimed at analyzing whether the innovation performance of our sample companies (average 2004-2006, variable Innovation) is determined by the family factor (binary variable FAM), which identifies the specificities of the family mode of governance (personalism and particularism). The control variables related to the activity sector and to the size are maintained. Since it is considered important by many authors (Cainelli et al., 2006; Klomp and Van Leeuwen, 2001), the past financial performance of the companies is also included in the model (cash flow available in 2004/ shareholders equity, PASTPERF).

The model is globally significant at the 10 percent threshold but the  $R^2$  is quite low. Also, table 4 shows that the adjustment quality is principally, and significantly (at the 5 percent threshold) captured by the available cash flows, which effectively make possible the future investments in the domain of innovation. The family character also influences the extent of R&D and patent expense positively but not significantly. These findings, associated

Table 4  
Results of the Third Model (Relation between Innovation and Family Character)  
R<sup>2</sup> adjusted: 0.118 – Sign. F: 0.093

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
3	(Constant)	.008	.026		327	.746
	Construction	.006	.046	.020	136	.893
	Trade	-.025	.030	-.122	814	.421
	Services	.030	.028	.161	.046	.302
	FAM	.019	.025	.123	763	.450
	Size	9.21E-009	.000	.019	119	.906
	PASTPERF	.000	.000	.360	.438	.020

a Dependent Variable: Innovation

b The binary variable Industry is removed from the model to avoid perfect multicollinearity.

with our sample, are consistent with the current literature, which states that family companies are particularly innovative because of their governance specificities (Chrisman et al., 2006; Kellermanns and Eddleston, 2006). These governance specificities induce, firstly, in a strategic partnership context, is long term oriented and favorable to innovation (Le Breton-Miller and Miller, 2006). Secondly, a specific social capital, altruism extended to customers and employees, family culture that facilitates cooperation and communication, market knowledge, etc are a source of comparative advantage in the domain of innovation (Eddleston et al., 2008).

### 5.3 Relation between Profitability of Family Companies and Innovation

In order to test the third hypothesis, two distinctive models are proposed - respectively on family and non-family companies<sup>7</sup> - to apprehend the influence of innovation (variable Innovation) on the global and future financial profitability of our sample companies (ROE). The control variable related to the activity sector and the size are maintained.

<sup>7</sup> In order to clearly characterize the influence of innovation on performance in family companies on one hand and in non family ones on the other hand.

Table 5  
Results of the Fourth Model (Relation Between Family Companies' Profitability and Innovation)  
R<sup>2</sup> adjusted: 0.318 – Sign. F: 0.033

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
4	(Constant)	21.101	19.914		1.060	.303
	Size	-.001	.000	-.474	-1.474	.158
	Innovation	112.980	67.473	.308	1.674	.111
	Construction	32.886	39.456	.156	.833	.416
	Trade	42.921	33.896	.338	1.266	.222
	Services	25.882	20.301	.280	1.275	.219

a Dependent Variable: ROE

b The binary variable Industry is removed from the model to avoid perfect multicollinearity.

Table 6  
Results of the Fifth Model (Relation between Non-family Companies' Profitability and Innovation)  
R<sup>2</sup> adjusted: 0.112 – Sign. F: 0.085

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
5	(Constant)	20.396	8.741		2.333	.034
	Construction	-11.230	17.898	-.165	-.627	.540
	Trade	-8.143	12.492	-.173	-.652	.524
	Services	16.600	16.884	.291	.983	.341
	Size	-2.23E-005	.000	-.216	-.730	.477
	Innovation	-71.253	154.973	-.133	-.460	.652

a Dependent variable: ROE

b The binary variable Industry is removed from the model to avoid perfect multicollinearity.

Although the results reported in Table 5 and 6 are based on relatively small sample size, even then comparison of the two models (tables 5 and 6) demonstrates that family companies generate more profitability from their innovation performances than their non-family counterparts. Indeed, the fourth model, relative to family companies, is significant (at the 5 percent threshold), and shows a positive and significant relation (at the 11 percent threshold) between financial profitability and R&D investments plus patents.

Even though the fifth model, relative to non-family companies, is also significant (at the 10 percent threshold), the adjustment quality is lower, and shows a negative non significant relation between the innovation performance of non-family companies and their financial profitability.

## **6. Conclusion**

Although few studies have shown the higher performance of family companies, literature in this domain is now trying to understand the underlying mechanisms. Among these factors, innovation retains the most attention because it is known to be predictive of firms' competitiveness and performance. Therefore, we can wonder if family companies are particularly predisposed to implementing innovation policies. The traditional answer to this question is negative, but recently, several authors affirmed the contrary by using arguments related to the mode of governance of family companies in its classical conception. This mode of governance, characterized by a concentration of ownership and management within the family, contributes to the construction of a management context that is different from the usual considerations of profit maximization. Indeed, at the levels of strategy and resources, considered using the contingency theories, family companies seem to constitute a favorable environment for innovation through a long term orientation allowing risk-taking, and through the development of a social capital that encourages innovation (easy communication and cooperation, common view, etc).

Our empirical study – based on a sample of large Belgian companies – tends to support these conceptual arguments and contributes to a better comprehension of the mechanisms underlying the over-performance of family companies. After confirming that innovation is a statistically significant source of profitability, our results highlight the fact that - on the basis of our sample - family companies are more innovative than their non-family counterparts. Moreover, the innovation performance of family companies is positively and significantly related to their profitability. This relation has not been established for non-family companies. Therefore, these results tend to demonstrate that family companies make their R&D and patent investments profitable by using their own specific mechanisms.

However, this empirical study presents some limits. First of all, the statistical results obtained on our relatively small sample (45 companies) are encouraging. The innovation determinants considered in this study are essentially related to the family mode of governance, and are approached by a binary variable that states whether or not the company is familial. Even though the definition of family company that we use makes it possible to ensure a concentration of ownership and management within the family, this approach can be considered as simplistic. More qualitative data, requiring a broader survey, could be more adequate. It would also be interesting to consider other family modes of governance, such as family ownership with external management or family management without holding the majority of the shares. Finally, the variable measuring the innovation performance (total R&D expenses plus patents) has the advantage of being available and easily measurable. However, this variable could be enriched by integrating more precisely the numerous levels of innovation, such as innovation on processes or on organizational structure, and also the level of risk or circumstances in which innovation takes place, such as costs reducing or productivity enhancing, to understand better the influence on financial performance.

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