

# FAMILY CUMULATIVE KNOWLEDGE AND FIRM'S FINANCIAL PERFORMANCE: AN EMPIRICAL INVESTIGATION OF THE WINE COMPANIES' GOVERNANCE

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## Abstract

**How to cite this paper:** Marsigalia, B., Giovannini, R., & Palumbo, E. (2019). Family cumulative knowledge and firm's financial performance: An empirical investigation of the wine companies' governance. *Corporate Governance and Sustainability Review*, 3(1), 8-17. <http://doi.org/10.22495/cgsrv3i1p1>

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**ISSN Online:** 2519-898X  
**ISSN Print:** 2519-8971

**Received:** 17.12.2018  
**Accepted:** 07.02.2019

**JEL Classification:** M2  
**DOI:** 10.22495/cgsrv3i1p1

Family business is one of the most common governance systems worldwide and it is very successful in industries with strong cultural traditions, as the wine business. The literature still disagrees on whether the familiar corporate structure increases performance or not. Our empirical paper aims to investigate the effect of a long-term company culture in terms of economic performance and firm value. Is it possible to track the cumulative knowledge (passed from father to son) into firm economic returns? Using a qualitative and a quantitative research approach, the survey tests the hypothesis that the more experienced companies (higher firm age) will perform better than the others considering a set of performance indicators on a four years pattern (from firm value to EVA and VAIC). Comparing firm longevity with the performance indicators, but also monitoring many other corporate governance or ownership indicators, on a panel dataset of the top Italian wine companies, developing the statistical models of regression and correlation to verify the relationship between performance indicators and a set of corporate governance/ownership variables. This methodology results in a deep analysis of the Italian wine business, that also describes the family buy-out strategy and the cooperative ownership structure (which could be considered somehow a micro-families aggregative model). Proper family firms represent 42% of the panel, with more than 200 years of experience, a larger presence of women on board, a higher average age of the directors and a higher propensity to the production of grapes. Moreover, they have the greatest longevity and perform better than the other two groups, non-family firms and cooperatives.

**Keywords:** Firm Age, Firm Value, Privately-Held Firms Management, Corporate Governance, Wine Business

## 1. INTRODUCTION<sup>1</sup>

In the wine business leading a family business is very common. During the last ten years this industry has widely changed (Broccardo et al., 2013) thanks to the internal growth both of the largest groups and

the SME. The transition time is a very critical moment also for wine firms that has to be carefully planned (Colli, 2006). Nevertheless, the data demonstrated that this step is easier to manage in the wine firms compared to other industries (Ipsò Ricerche). Increasing awareness for sustainability leads to the proliferation of initiatives in the wine industry. These initiatives mainly aim at managing the environmental aspects of wine production (Merli, Preziosi, & Acampora, 2018).

In the literature there is still some disagreement on its definition and on whether the

<sup>1</sup> Even though the work is a result of the combined effort of the authors, paragraphs 1 and 4 have been developed by Emanuela Palumbo; paragraphs 2, 2.1 and 5 by Bruno Marsigalia; paragraphs 3, 3.1, 3.2 and 6 by Renato Giovannini

advantages are more relevant than the disadvantages—distinctive familiness vs. constrictive familiness (Habbershon & Williams, 1999).

It was only starting from the 1980s that the family business was considered as a corporate model that could be efficient also in the most advanced economic contexts, because of its specific advantages and characteristics (Sirmon & Hitt, 2003). The peculiarity of a family firm is the coexistence of two different systems: the family - emotional needs and the firm -business needs (Adler & Kwon, 2002). The so called *familiness* represents the alchemy whereby family firms obtain a distinctive advantage, thanks to their *social capital*. This is made up of company-family culture, human capital, informality, company trust, commitment and knowledge, which is transferable and growing over time (Spender & Grant, 1996).

On the other hand, there are also disadvantages, such as nepotism within the company, the scarcity of capital and above all the generational shift, which is a source of conflicts that mean that less than 10% of the family owned businesses survive to the 3rd generation (Le Breton-Miller et al. 2004). Some of the strategies to manage succession efficiently are the family pact, the usufruct, creating a family holding or a trust, or else using private equity strategies, such as the family buy out (FBO).

The survey is focused on the wine business because this industry holds some unique characteristics, as an impressive firm age (e.g. the firms *Frescobaldi* and *Antinori* have accomplished respectively 30 and 26 generational shifts) and the economic stability of the industry, also during financial crises<sup>2</sup>. The purpose of the research is to investigate if the long-term company culture can influence performances of the firms. The structure of the paper is the following: paragraph 2 analyze the literature review on the topic; paragraph 3 describes the methodology used; paragraph 4 shows the empirical analysis; paragraph 5 the research findings; finally, paragraph 6 represents the main limitations, implications and conclusions.

## 2. LITERATURE REVIEW

Corporate governance is the system of rules, practices, and processes by which an organization is controlled and directed. It sets the foundation not only for business protection and strategic performance, but also for the confidence of the markets, investors, regulators, and other key stakeholders (Watt & Schwartz, 2018).

Jaskiewicz and Dyer (2017) are offering to the community a definition of family business to address the family business research, since the heterogeneity of the company features can be necessary to "address the elephant in the room".

Powell and Eddleston (2017) indicated that family involvement in the firm was indirectly related to four entrepreneurial outcomes (business performance, strategic planning, satisfaction with business success, and commitment to remain self-employed) through family-to-business support,

suggesting a particular benefit of the intertwining of family and business in family firms.

Nowadays, family governance and firm performance is still a very discussed topic. Isabelle Le-Breton Miller and Danny Miller (2018) suggest the conceptualization of the relevant social and economic issues unexplored in their former papers.

The quantitative studies conducted on the effects produced by family involvement in business on firm performance reveal some heterogeneous findings. These studies mainly use regression and other econometric techniques (Dyer, 2006; Rutherford et al., 2008).

The economic literature agrees on the presence of a "bright" and a "dark" side of the family involvement in the firm (Minichilli et al., 2010).

Based on the observation that some family firms innovate less when growing older, others are very successful and innovative over multiple generations, Rau, Werner, Schell (2018) worked on a sample of 942 German firms and showed that innovation output decreases over the generations, but if the third and later generations owner-managers have high levels of psychological ownership, innovation output is as high as in the founder and second generation.

It is not a simple detail that a family business brand could be considered inimitable because of the owning family's unique history, its identity, and the family members that have exemplified family and firm values over time, perpetuated in stories anchored in the minds of employees, customers, and other stakeholders (Blombäck, 2011). Following this studies, Astrachan et al. (2018) define the "family branding" as a valuable idiosyncratic resource, the family nature of the firm.

Anderson and Reeb (2003) find that family firms perform better than non-family firms, above all when the CEO is a family member. That model would basically represent the overtake of the agency costs (Jensen & Meckling, 1976).

However, to answer the question if a family leadership would be always beneficial to performance, Miller et al. (2013) focuses on the presence of a family-CEO. They verify that smaller firms with concentrated ownership would outperform with a family-CEO; while larger firms with a dispersed ownership will underperform with a family-CEO. Villalonga and Amit (2006) demonstrated, instead, that the family-CEO creates value only when he or she is the founder; while if a descendant serves as CEO the firm's value is destroyed.

Some authors demonstrated that a family-owned business is more likely to select an intra-firm member as the new CEO when the incumbent CEO is a family member. Moreover, a family-owned business is prone to selecting new CEOs from external sources when the shareholding ratio of outside directors is greater (Luan et al., 2018).

Lee (2006) empirically investigates the competitiveness of family-owned firms relative to firms owned by diverse shareholders. Data gathered over the 1992-2002 period confirms that family firms tend to experience higher employment and revenue growth over time and are more profitable.

Bjuggren and Palmberg (2010) investigate whether family-controlled firms have better performance than non-family firms and whether this

<sup>2</sup> In 2017, the data confirm that Italy is the first wine producer worldwide, with 50 ml of hectolitres, followed by France with 43 ml and Spain with 43 ml of hectolitres.

investment performance is negatively affected by a separation of ownership and control because of vote differentiation. The analysis shows that family control has a positive impact on performance when ownership and control are aligned, whereas separation of ownership and control in terms of vote-differentiated shares reduce performance.

Broccardo et al. (2015) compare 288 Italian and French family firms (FFs) and 302 non-family firms (NFFs) operating in the wine sector in terms of performance. Their study find that the family variable is partly important to achieve good economic and financial performance. In terms of economic performance, FFs both in Italy and in France outperform in terms of ROE and ROA, though only Italian NFFs outperform in EBIT. In terms of financial performance, both in Italy and in France NFFs outperform FFs in current ratio and liquidity ratio, while FFs outperform in solvency ratio.

On the other hand, Bennedsen et al. (2007) find that family successions have a large negative causal impact on firm performance: operating profitability on assets falls by at least four percentage points around CEO transitions. Furthermore, they show that family-CEO underperformance is particularly large in fast-growing industries, industries with a highly skilled labor force, and relatively large firms. Overall, empirical results demonstrate that professional, non-family CEOs provide extremely valuable services to the organizations they head. Ali et al. (2018) provide the casual effect of boardroom gender diversity on default risk. Based on a sample of 831 Australian firms, they showed that the proportion of female directors have an overall negative effect on default risk.

Oswald et al. (2009), using a nationwide sample of 2.631 privately held and publically traded family businesses, examine if the percentage of family ownership is an agency or entrenchment relationship and find the latter. Specifically, they verify a statistically significant negative relationship between percent of family control and sales growth as well as a strong inverse relationship between percent of family controlling the top management team and all measures of financial performance.

Finally, some authors are investigating the role of corporate philanthropy in a family succession. They showed that despite generally poorer performance after succession, a family firm with a second-generation CEO that engages in corporate philanthropy exhibits better market and accounting performance relative to other types of transitions, suggesting a strategy in which corporate philanthropy reduces the magnitude of poor performance after succession (Pan et al., 2018).

### 3. METHODOLOGY

The research is based on a sample of the largest Italian wine companies, which were listed by *Mediobanca* in a survey of the industry published in April 2017.

One of the greatest barriers to studying family-owned businesses is obtaining relevant information for research purposes, due to a scarcity of traded firms.

We developed an empirical analysis based on secondary sources such as the wine firms' financial reports, website information, archive financial

databases (*Registroimprese.it*), on-line wine business reviews (*winenews.com*), wine industry reports (*the Wine Advocate*), business statistics (*Istat and Sinab*) and also some primary sources such as direct interviews to the firms by e-mails and phone calls. A quantitative research approach was implemented to test the impact of the corporate governance/ownership characteristics on the financial indicators, using the statistical models.

In particular, the survey develops both linear regression and correlation to evaluate the statistically significant relationships existing between a set of corporate governance/ownership characteristics and intellectual capital/ firm value.

On the performance side, we calculated each indicator based on a 4 years pattern (2013-2016): ROI, ROS, turnover, Z-Score<sup>3</sup>, VAIC<sup>4</sup>, firm value<sup>5</sup> and EVA<sup>6</sup>.

Table 1 shows a set of corporate governance variables tested for all companies and those analyzed exclusively for family-firms.

**Table 1.** Corporate variables analyzed for all firms vs. corporate variables tested only for family firms to track a significant relationship existing with performance

CORPORATE GOVERNANCE VARIABLES ANALYZED FOR ALL FIRMS	CORPORATE GOVERNANCE VARIABLES ANALYZED FOR FAMILY FIRMS
Kind of Governance Structure (Family Firm/Non-Family/Cooperative)	No. of Generational Shifts
Type of Activity (Wine Producer/ Wine Seller)	No. of Actual Successors in the Current Governance
Firm's Age	No. of Family-Member in the Board of Directors
No. of Board Members	No. of Non-Family Members in the Board of Directors
Women on Board	Role of the Non-Family Members (Chairman/CEO/Others)
Women Executive	No. of Non-Family Members on the No. of Family Members
Average Age of the Board Members	Presence of a Family - Chairman
No. of Board Members on the No. of Employees	Non-Family Women on Board
CEO Duality	Type of successors (brothers/cousins/dynasty)
No. of Employees	

The output of the empirical investigation is listed in the paragraphs 4 and 5.

<sup>3</sup> Z-score is a synthetic indicator that results by pondering financial returns, assets and efficiency indicators.

<sup>4</sup> VAIC is an analytical procedure that evaluate the efficiency of value added (VA) using the following equation  $VAIC = CEE + HCE + SCE$ ; where the Capital Employed Efficiency (CEE) is an indicator of VA efficiency of capital employed; the Human Capital Efficiency (HCE) is an indicator of VA efficiency of human capital; the Structural Capital Efficiency(SCE) is an indicator of VA efficiency of structural capital.

<sup>5</sup> Firm value has been calculated with the profits formula  $W = R/i$ .

<sup>6</sup> Economic value added is the net profit less the equity costs of the firm's capital. Net operating profit (NOPAT) less capital charge, which is provided by the product of the cost of capital and the economic capital. Several adjustments have been operated.

### 3.1. Hypothesis

The hypothesis tested are the following:

The first hypothesis is that a firm with a long-term company culture and an accumulated knowledge over the generations holds a greater firm value. To test this hypothesis, we used "firm age" as a proxy of the firm experience. Firm value was calculated with the profits formula ( $W = R/i$ ) for all companies of the sample over a four years' time. This hypothesis will be confirmed by the analysis presented in the next paragraphs.

The second hypothesis is that a firm with a long-term company culture holds a greater lever of intellectual capital. To test this hypothesis, we used "firm age" as a proxy of the accumulated knowledge. The level of intellectual capital held by the company, was tested using VAIC (value added intellectual capital) calculated on a four years time. This hypothesis has not been confirmed by the statistically significant results obtained. In fact VAIC resulted to be negative for all companies (including FF). Probably some intangible assets that are very important for the wine industry have not been represented properly in the formula.

The third hypothesis is that there is a correlation between the more experienced firms (higher firm age) and better EVA results. This hypothesis will not be positively confirmed. There is, instead, a negative correlation between EVA and firm age, probably explained by the more ancient firms being all FF and using a great amount of the family capital and thus having lower EVA calculations results.

### 3.2. The sample and the variable analyzed for each of the 3 samples

The sample made of the first Italian wine companies has been subdivided into three groups according to their corporate structure: family firms (FF), non-family firms (NFF) and cooperatives (COOP). FF have 42% share, NFF 25% and 33% COOP.

The presence of women on the board of directors of the wine firms is generally speaking very low for all type of companies, but the value is decreasing going from the family firms to the cooperatives. The presence of a woman with an executive role is minimal and the presence of women external to the family is none. The minimum ratio between the number of directors and the total number of employees is held by NFF. CEO duality feature only appears in 30% of the firms, which is an unexpected result having a sample with a large presence of FF. In fact, 50% of the family firms employed one non-family member to work as a CEO. In the literature many authors have been focusing their studies on the impact that a non-family CEO would have on FF performances (Miller et al., 2013; Villalonga & Amit (2006); Bennedsen et al., (2007)). This empirical result might represent the key to understand why FF outperform in the wine business, relying often to a non-family CEO and to a most trusted advisor feature (MTA). Nevertheless, the Chairman role is always played by a family member to support the family logic and social capital inspiration.

**Table 2.** Average values of the corporate and ownership variables analyzed for the three samples of firms according to their governance model (left side). On the right part there are the variables analyzed only for the sample: family firms (FF)

VARIABLES ANALYZED	FF	FFF	COOP	CORPORATE GOVERNANCE ANALYZED FOR FF	FF
Distribution of the firms	42%	25%	33%	No. of Generational Shifts	8
Wine Producer Activity	70%	62%	30%	No. of Actual Successors in the Current Governance	2
Firm's Age	216	103	66	No. of Family-Member in the Board of Directors	3,3
No. of Board Members	6	3	17	No. of Non-Family Members in the Board of Directors	2,6
Women on Board	20%	17%	13%	No. of Non-Family Members on the No. of Family Members	30%
Women Executive	10%	0	0	Non-Family Member as CEO	50%
Average Age of the Board Members	61	57	53	Presence of a Family Chairman	100%
No. Board Members/No. Employees	5%	3%	6%		
CEO Duality	30%	33%	25%		
No. of Employees	146	155	283		

Table 2 listed below shows that the top Italian FF have a long history of generational shifts that have been accomplished successfully. The number of successors that run the actual governance reveal that those firms might lasted more than other industries' FF (Le Breton-Miller et al., 2004) also because they have a small number of successors managing the firm (two on average) rather than a dynasty. Moreover, they overcame the limit of a lack of separation between property and management by having employed 30% of the members of the board as professional managers external to the family. The average age of the firms is more than 100 years (138 years), with the oldest firm characterized by 715 years of activity in the wine making. The average amount of the board members is 9 people, but this result is widely spread between only one director and more than 35 members (as in the COOP). The average age of the members is 57 years.

## 4. THE EMPIRICAL ANALYSIS

By using the statistical models, we tested the significant relationships existing between the corporate governance/ownership variables and performance indicators. Pearson correlation shows very significant results that have been confirmed by the linear regression of the variables on the independent variable EVA. In the following tables have been reported only the significant results (at least 5%).

Starting to discuss the results presented in Table 3 from the first line, the oldest firms, which also have the largest number of generational shifts, have a positive significant relationship with the amount of family members in the board of directors, with the presence of women on board, with having a non-family CEO. Very important to support the hypothesis formulated, is that the return on sales (ROS) is significantly correlated to the presence of family members in the board of directors. The amount of family members in the board is positively

correlated to the firm age, in fact the oldest firms tend to be the FF. The variable firm age is significantly correlated to women on board, and that last variable is positively correlated to turnover.

Moreover, firms with a greater number of generational shifts tend to have more board members, generally speaking more employees than the youngest companies, and thus a greater firm size. Very important to note that the firms with a longer company history (greater firm age) tend to have developed a certain experience that bring them to choose as a CEO someone external to the family, possibly acting as a mediator (most trusted advisor) to mitigate conflicts.

The amount of the board members is correlated to the type of corporate governance adopted (FF, NFF, COOP), where the cooperatives have the largest boards while NFF the smaller. Board members are positively correlated to the number of employees and to the amount of non-family

members. CEO duality is negatively correlated to the average age of the board members and the smaller is the average age of the board the greater is the total amount of board members. This situation is realized in the cooperatives, but also in the family firms' boards, in proximity of a generational transition.

The return on the investment (ROI) is significantly correlated to a family Chairman. That last characteristic, as expected, is correlated to the average age of the board (older members tend to have a family chairman). The number of actual successors directing the firm is correlated to a greater presence of family members in the board, as a track that when cousins or a dynasty is managing the firm, the total amount of family members in the board will increase. Turnover is correlated to the type of corporate governance, to the amount of non-family members and obviously to firm size. Performance indicators are correlated to each other.

**Table 3.** Parametric correlation between CG/ownership variables with performance indicators

Correlation	Generational Shifts	Board Members	Women on Board	ROI	ROS	Turnover	F.Mem.	Non-F.Mem.	Non-F/Family	Non-F.CEO	F. Chairman
Firm Age	0,991 (<0,001)		0,487 (0,016)				0,520 (0,009)			0,478 (0,018)	
Board Members	0,525 (0,044)								0,840 (0,002)		
Women on Board	0,553 (0,033)										
Age Board M.		(0,017) - 0,481						(0,012) - 0,516			0,539 (0,008)
CEO Duality		(0,049) - 0,405									
No. Employees	0,648 (0,009)	0,651 (0,001)				0,629 (0,001)		0,650 (0,001)			
Av. VAIC	(0,004) -0,694			0,469 (0,021)							
Av. ROI					0,707 (<0,001)						0,417 (0,048)
Av. Turnover		0,739 (<0,001)	0,426 (0,038)								
No. Successors							0,637 (0,048)				
F.Members				0,414 (0,044)							0,838 (<0,001)
Non-F.Members		0,971 (<0,001)				0,763 (<0,001)			0,931 (<0,001)		(0,014) - 0,514
Governance		0,685 (<0,001)				0,472 (0,020)		0,646 (0,001)		(<0,001) - 0,66	

**Table 4.** Correlation exiting between the economic capital (w) and the other variables

Correlation	Firm Age	Generat. Shifts	No. Successors	Type Succ.	Board Mem.	Family Mem.	Non-Fam.Mem.	%Non-Fam.Mem.	Women B.	Av_Age	Employ.
(W) Firm Value	0,547 (0,0057)	0,5682 (0,0038)	0,1554	0,3216	0,1078	0,6024 (0,0018)	-0,0421	-0,3371	0,2489	0,1622	0,2812
Firm Age		0,9809 (<0,001)	0,3205	0,4787 (0,0180)	-0,0353	0,5197 (0,0092)	-0,1567	-0,1575	0,4872 (0,0157)	0,0762	0,3005
Generational Shifts			0,3744	0,5786 (0,0031)	-0,1138	0,5577 (0,0046)	-0,2395	-0,2303	0,4538 (0,0259)	0,1529	0,2564
No. of Successors				0,4442 (0,0297)	-0,2799	0,7404 (<0,001)	(0,0319) - 0,4389	(0,0040) - 0,5649	0,2782	0,4397 (0,0316)	-0,2882
Type of Successors					(0,0259) - 0,4539	0,4991 (0,0130)	(0,0059) - 0,5451	(0,0007) - 0,6411	0,1711	0,3235	-0,0728
Board Members						-0,1371	0,9719 (<0,001)	0,4064 (0,0487)	0,3281	(0,0174) - 0,4809	0,6506 (0,0006)
Family Members							-0,3664	(0,0007) - 0,6421	0,2458	0,3544	-0,1409
Non-Family Memb.								0,5344 (0,0071)	0,2497	(0,0069) - 0,5359	0,6446 (0,0007)
%Non-Fam.Mem.									-0,0631	(0,0007) - 0,6431	0,3644
Women on Board										0,0248	0,2471
Av_Age of Memb.											-0,3027
Employees											

Table 4 shows only significant results in terms of the correlation existing with the firm value (W) calculated with the profits method (R/i). This table shows the main result supporting the HP, since W is positively correlated to firm age and generational shifts.

There is a positive correlation between the number of successors managing the firm and the type of successors, thus a dynasty or a cousin's direction corresponds to a larger amount of successors actually managing the firm. The amount of family members is correlated to the average age of the board, thus more family directors tend to have a higher average age.

While, the average age of the board members is negatively correlated to the total amount of board members, because the largest board tend to have a lower average age.

Board members are positively correlated to the number of family successors at the direction and

negatively to the non-family members in the board. The total amount of family members is positively correlated to firm size, which is a proxy of the number of employees.

The linear regression of the variable economic value added (EVA) has been developed in progression, thanks to 3 models as listed in Table 5. The statistical significance is involved in the value of the adjusted R squared, which is 0.5 in the first model, 0.65 in the second and 0.7 in the third model in progression. Some variables influence the creation of value already in the first model, such as the presence of women on board and the firm age, both in a negative way. The second model presents a negative relationship between the value creation and some indicators, such as w and Z-score. Both those indicators are part of the EVA, thus they explain a little part of the value creation. ROE positively influences the value creation.

**Table 5.** Linear regression of EVA on the corporate governance, ownership and performance variables (model 1)

EVA	Model 1	Coef.	(Std. Err.)	p
Costant		3,32E+08	1,28E+08	0,019
Board Members		711619,8	3651485	0,848
Firm Value (R/i)				
Non-Family Members		-1,1E+08	1,16E+08	0,374
ROI				
Women on Board		-4,8E+08	1,86E+08	0,020
VAIC				
Cooperatives		-1,1E+08	69000000	0,134
Private Firms				
Family Firm		-1,6E+08	9,74E+08	0,126
Firm Age		-5E+07	24200000	0,053
ROE				
Z-Score				
	F (6, 17)		4,97	
	Prob > F		0,0041	
	R-Squared		0,6371	
	Adj- R-Squared		<b>0,509</b>	

**Table 6.** Linear regression of EVA on the corporate governance, ownership and performance variables (model 2)

Model 2	Coef.	(Std. Err.)	p
Costant	96900000	69200000	0,178
Board Members			
Firm Value (R/i)	-120,781	21,41216	<b>0,000</b>
Non-Family Members			
ROI	5753222	5024957	0,267
Women on Board			
VAIC	-951842	1272194	0,464
Cooperatives			
Private Firms			
Family Firm			
Firm Age			
ROE	9936840	2519161	<b>0,001</b>
Z-Score	-2,8E+08	1,35E+08	<b>0,051</b>
	F (5, 18)		9,64
	Prob > F		0,0001
	R-Squared		0,7282
	Adj- R-Squared		<b>0,6527</b>

**Table 7.** Linear regression of EVA on the corporate governance, ownership and performance variables (model 3)

Model 3	Coef.	(Std. Err.)	p
Costant	3,6E+08	1,07E+08	<b>0,004</b>
Board Members	2297070	3126495	0,474
Firm Value (R/i)			
Non-Family Members	-1,3E+07	92300000	0,186
ROI			
Women on Board	-6,3E+08	1,55E+08	<b>0,001</b>
VAIC			
Cooperatives	-2,4E+07	77400000	0,762
Private Firms	89800000	81000000	0,285
Family Firm			
Firm Age	-4,8E+07	18900000	<b>0,024</b>
ROE	-1683375	2114747	0,438
Z Score	-2,2E+08	1,18E+08	<b>0,085</b>
	F (8, 15)		7,83
	Prob > F		0,0004
	R-Squared		0,8068
	Adj- R-Squared		0,7038

The third model confirms the data of the first two models, with a greater significance level. It shows that the variables that negatively influence EVA are firm age, women on board and Z-score. This result is not confirming the third hypothesis, that there is a correlation between the more experienced firms (higher firm age) and better EVA results. This hypothesis is not positively confirmed. There is, instead, a negative correlation between EVA and firm age, probably explained by the more ancient firms being all FF and using a great amount of the family capital and thus having lower EVA calculations results.

**5. RESEARCH FINDINGS**

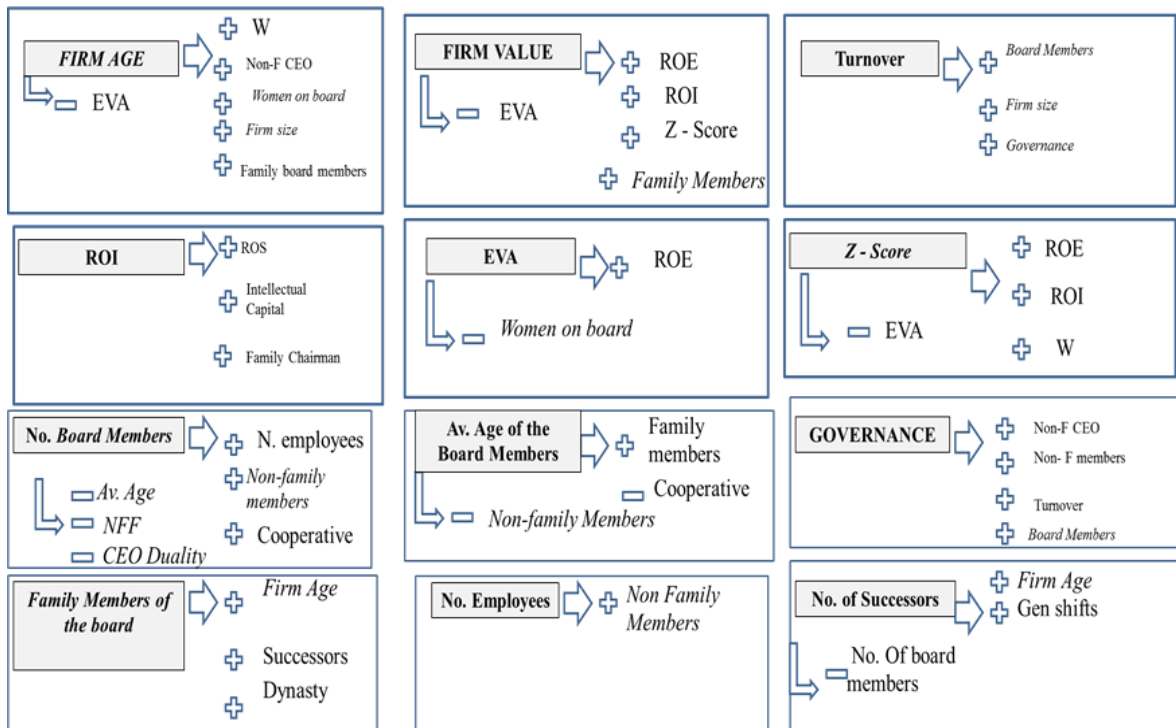
The output of the survey has been summarized in a benchmark model for the wine industry, as represented in Figure 1.

Every box represented in Figure 1 is describing the significant results that have been provided by the statistical operations presented in the tables. Graphically the figures summarize for every variable the positive and negative relationships of every item to the other variables. The first box on the left tells us that firm age (the longevity of the firms) is positively correlated to: firm value, a non-family CEO, women on board, the firm size and the larger presence of family members in the board; while negatively to EVA.

Firm value is positively correlated to: ROE, ROI, Z-score, the presence of family members; while negatively to EVA.

Turnover is positively correlated to the amount of board members, firm size and the type of governance (firstly FF, COOP and then NFF). The second line of the model shows the strong interconnections existing between the economic indicators.

**Figure 1.** Benchmark model for corporate governance in the wine industry.



Note: Plus sign indicates the positive correlations between variables. Minus signs indicate the negative correlations. Only variables that are significantly correlated are listed. The graph is presented and discussed in the current paragraph.

As in the third line, the first box is summarizing that the number of board members is positively correlated to the number of employees, to non-family members and to the type of cooperative structure; while it is negatively correlated to the average age of the board members, to the NFF governance and to CEO duality.

About the average age of the board members, there is a positive correlation with the number of actual successors managing the firm (the more successors, the highest is the average age); while negative with the COOP and the presence of non-family members.

The corporate governance (FF as a first dummy, COOP as a second, NFF as a third) is positively

correlated to an external CEO, turnover and the total amount of the board members.

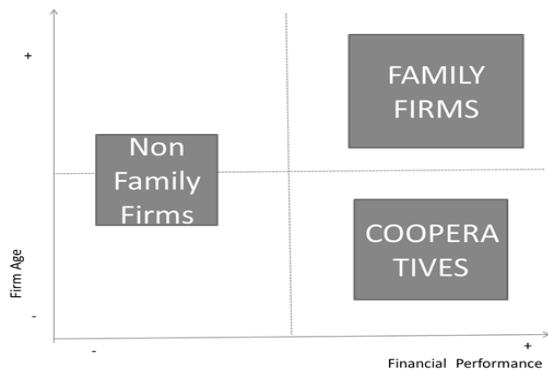
The greater presence of family members is correlated to firm age, a larger amount of family successors managing the firm and the presence of a dynasty or an enlarged family control, such as cousins (rather than one successor or brothers).

The number of employees is correlated to non-family members; while the enlarged familiar control (dynasty) is correlated to firm age, generational shifts and number of actual successors.

Figure 2 represents the segmentation of the three types of governance focused on two items: firm age and financial performance. The size of the boxes represents the segment's size and their

positioning has been made according to the average longevity and performance values.

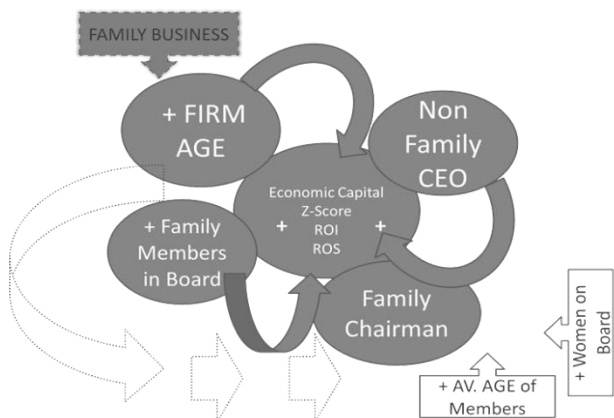
**Figure 2.** Positioning of the three segments, according to their longevity and performance and firm value



Family firms have both greater longevity and higher financial returns. The cooperatives have very good financial performance and a lower company history. Non-family firms have a significant firm age (also thanks to the family-buy-out operations) but meet lower returns and firm value. In addition, as presented in Table 2, family firms tend to be more orientated on the production of the grapes as well as the commercialization of the wines. This inside matches with the fact that in Italy the majority of the wine firms are either FF or COOP (which can be considered as a micro-familiar aggregative model) and thus the firms tend to be working on the production side, which is very important to keep the terroir inspiration and the quality side.

The main implication is that the output suggests that a family firm is an efficient governance model, that a long history of generational successions is likely to influence positively the firms returns, also in terms of brand image, reputation and cumulative know-how. Despite that, the presence of a CEO external to the family to manage the firm, increases the performances, as well as a majority of family members in the board, a higher average age of the board and a family chairman.

**Figure 3.** Model that represents the main corporate governance and ownership features to maximize profits in the wine business



The results are summarized in Figure 3 to describe the successful formula of the wine business corporate governance structure.

Figure 3 focuses on the family business wine companies, since they are the most productive once and the biggest segment encountered. The figure shows the significant relationship existing between firm age and the performance indicators (economic capital w, ROI, ROS and Z-score).

To maximize returns the top wine firms also provide a non-family CEO, but a majority of the board members belong to the founder's family. A CEO external to the family allows to act as a mediator and reducing possible conflicts, above all in proximity of the generational transitions (Barbera & Hasso, 2013; Salvato & Corbetta, 2013). A majority of family members managing the firm is to support the family logic that rises the so-called social capital.

On the other hand, firm longevity is determining other two characteristics: the presence of women on board and an older average age of the directors.

## 6. CONCLUSIONS

The purpose of the survey is to verify if there is a significant correlation between having a long-term company culture and the accumulation of knowledge and economic returns thanks to an empirical analysis of the wine industry. The analysis of the main Italian wine companies (listed by Mediobanca institute report 2017) shows that family firms (FF) are the most diffused corporate structure, followed by the cooperatives (COOP) and then by the non-family firms (NFF). The output supports the hypothesis that a firm with a longer company culture is able to transform it into a higher firm value. The longevity of the firm creates value for the firm in terms of economic capital (W), but it destroys value in terms of EVA. EVA is the only indicator to be negatively correlated to all the other performance indicators (W, Z-score, ROI, turnover and ROS) because the cost of capital inclusion in the formula heavily tracks the family investment in the vineyard, the cellar and other fixed assets, which often belong to proper capital; but also because of the intangibles that characterize the wine industry and do not appear in the balance sheet, such as terroir, biological cultivation and experience. As expected, ROE is influencing EVA in the second model of the linear regression, but that relationship becomes less significant in the third model when including other variables in progression. Thus, the return on equity does not have an impact so determining on EVA and result provides us an input for future insights and researches. The limits of the research are the limited amount of the sample analyzed and the simplicity of the statistical models used rather than more sophisticated econometrics systems. Further researches will provide a comparison between the largest companies (volume strategy) and the premium price companies (selected as the most awarded by the customers).

The main implication of the paper is a practical experience to support the academic community that claims the efficiency of family business as a model. The usefulness of the output for the firms is to have a benchmark model of governance, above all for family firms. In fact, not to destroy the "familiness"



advantage, family firms are suggested to set the governance in this way:

- the chairman to be a member of the family (the founder or his successor);
- a greater amount of family members in the board rather than non-family members (to defend the social capital logic);
- the main managing power (CEO) not to be a member of the family (possibly a person that has gained during the years trust and would act as a most trusted advisor (Strike, 2013));

- a greater longevity of the firm (to pass knowledge from father to son);
- a higher average age of the board members (compared to the other 2 segments);
- type of successors that would be brothers or cousins (rather than a dynasty which normally leads to entropy);
- the presence of women on board of directors (many associations and wine firms are nowadays managed by women with a great success).

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