Roles Differentiation in Family Firms Succession: The Impact of Private banking and Private Equity

Gianluca Colombo[1] and Vincenzo Piantedosi[2]

Abstract

Family Firms are organisational forms where the continuity of the relationships between the owning family (families) and the firm is mutually beneficial to both the family and the firm. Succession is one of the key processes of continuity dynamics. Successions are often considered turning points, which may have profound consequences for continuity itself as well as for the family and firm's destiny. From the firm's point of view, successions can result in a fragmentation of ownership and in a differentiation of roles among family members. A well-managed succession process can contribute both to the continuity of the family-firm relationship and to the firm's performance. A poorly managed succession process can negatively impact on the owners' emotional attachment and generate tensions among managers undermining the firm's entrepreneurial performance.

We propose an extension of the FITS[3] model, which is based on a resource-based view (RBV) of family firms and on dynamic capabilities (DC). Through our model we simulate the effects of the succession on the firm's entrepreneurial performance. Our simulations help to understand the contribution that banking services, particularly private banking and private equity, can provide to the management of succession.

The paper is organised as follows. In section one we analyse the RBV and DC literature on family firms (FF) and we specify the FITS model. In section 2 the model is extended to include the effects of banking services. In Section 3 the results of the simulations are illustrated and discussed. Our conclusions suggest that family members should manage their private assets in order to make the succession more fluid. They also should consider private equity to re-compact the ownership structure and improve FF leadership. We also suggest that banks should integrate private banking and private equity services.

Key words: Succession, resource based view, dynamic capabilities, entrepreneurial performance, private banking and private equity.

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[3] See M. Koiranen e F. Chirico (editors), Family Firms as Arenas for Trans-Generational Value Creation: A Qualitative and Computational Approach, University of Jyvaskyla, 2006.

Introduction

The impact of family ownership on firm performance is one of the most researched topics in family business literature[4]. The results of this research are still inconclusive as in some studies family ownership seems to have a positive impact on performance while others do not find any evidence of family ownership effect on performance (Mazzola and Sascia 2008). The reason for these ambiguous findings is probably that family ownership is a rather complex and multidimensional concept, which needs to be further investigated and specified. For example in a second or third generation family firm, family shareholders tend to assume different roles and show different interests. When these roles and interests are integrated around a set of shared values and managed by a strong leadership, the family ownership effect on performance is positive. When the integration fails and when the leadership is weak, tensions among family shareholders emerge and performance are negatively affected.

In previous research, we have explored the multifaceted effect of family ownership on performance through computer-based simulations[5]. The model that we labelled FITS was created on the basis of multiple-case studies. Figure 1 captures the essence of the model and shows how family ownership affects performance.

INSERT FIGURE 1 APPROX. HERE

Family ownership contributes to firm performance providing several critical resources; in other words our analysis of family ownership is placed within the resource-based view of the firm. In particular we consider that family owners provide knowledge-based human capital and social capital (both internal and external). These two resources are combined and transformed in dynamic capabilities that allow the firm to innovate across generations and, thus, to keep a high level of performance. The second important contribution that family shareholders provide is the psychological ownership, which sustains a high level of commitment across generations, with a positive impact on performance. A more complete version of FITS model is illustrated in figure 2. Here the role of family ownership is analysed, through the impact that ownership fragmentation has on psychological ownership, human and social capital.

INSERT FIG. 2 APPROX HERE

We have run several simulations that show how an increase in fragmentation reduces both internal social capital and psychological ownership, with a negative impact on firm performance[6]. At the same time, a more fragmented ownership increases pressures to drain financial resources from the firm to the family. These resources are invested in private assets (financial and real estate) outside the firm. Private assets can be used to compact family ownership, through family buy out. Private equity can be used to complement private assets in the strategy of restructuring family ownership. We extended the FITS model to study how ownership structure affects

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[4] For a literature review of the impact of family ownership on firm performance see Montemerlo (2009, *forthcoming).*

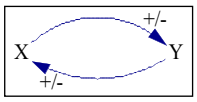
[5] Colombo, Koiranen, Chirico, 2006.

[6] For a detailed discussion of computer-based simulations see Colombo, Koiranen, Chirico (2006).

firm performance and how private assets and private equity can contribute in restructuring family ownership.

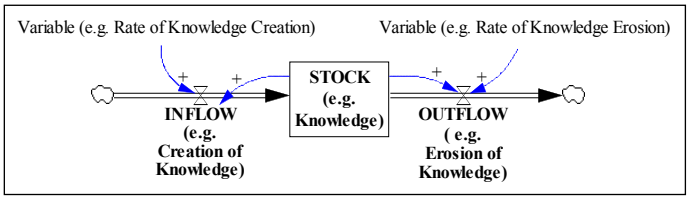
FITS model and its extension are based on system dynamics, which is an approach to modeling the dynamics of complex feedback systems through formal computer simulations.

Feedback is a core concept in system dynamics. It refers to the situation of X affecting Y and Y, in turn, affecting X through a chain of causes and effects. Causal loop diagrams are used to represent feedbacks of a system, that is, the way a system is connected by positive (*self-reinforcing*) and negative (*self-balancing or self-correcting*) feedback loops (Forrester, 1961, 1968; Sterman, 2000)[7]:



For more details, see *Chapter 4.1*, Chirico, 2006c, Appendix D. Feedback loops are useful to capture and communicate mental models but they have a lot of limitations. For instance, they do not take into consideration stocks and flows of the system (Sterman, 2000).

System dynamics is based on the *Principle of Accumulation*. It states that all dynamic behaviours in the world occur when *flows* accumulate in *stocks*[8]:



Stocks and flows are the basic building blocks of a system dynamics model which allow analyzing the feedback loops of the system[9] (Forrester, 1961, 1968; Morecroft, 1982, 1983; Morecroft and Sterman, 1992; Sterman, 2000; Mollona, 2000; Lomi and Larsen, 2001).

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[7] Balancing and reinforcing loops are easy to identify by counting the number of "-" and "+" in the feedback loop. A feedback loop is a balancing loop if the number of "-" is odd; it is a reinforcing loop if the number of "-" is even or zero.

[8] Sterman (2000:192) explains that "- Stocks are represented by rectangles; - Inflows by a pipe pointing into (adding to) the stock; - Outflows by a pipe pointing out (subtracting from) the stock; - Valves (at the center of flows) control the flows; - Clouds (at the extremities) represent the sources and sinks for the flows (boundaries)".

[9] A series of variables are also needed to simulate the model of the system.

A *stock* is an entity which is accumulated over time by inflows and depleted by outflows. It accumulates past events characterizing the state of the system. A Stock typically has a certain value at each moment of time (e.g. knowledge). Mathematically, a stock (S) can be seen as an integration (accumulation) of the difference between inflow and outflow (F) in the long term:

$$St = \int_{t0}^{t} [Inflow(t) - Outflow(t)]dt + S(t0)$$

A *flow* changes a stock over time by inflows (e.g. creation of knowledge) and outflows (e.g. erosion of knowledge). It is typically measured over a certain interval of time. Mathematically, a flow (F) can be seen as the derivative of the stock (S) with respect to the time (t) that is its net rate of change:

$$F = inflow - outflow;\ F = \frac{dS}{dt}$$

Stocks are the source of delays. A *delay* is the amount of time by which an event is retarded. It is the time between the instant at which a given event occurs and the instant at which a related aspect of that event occurs (e.g. time between creation and absorption of Knowledge). In System dynamics, delays are responsible for generating effects which are very often nonlinear and counter-intuitive in the real world (Sterman, 2000).

The system dynamics methodology follows three steps:

- taking into consideration a *System*[10];
- *Model*[11] the System;
- *Simulate*[12] the Model.

To make simulations, we assign numerical values to all parameters, initial values to stocks and proper shapes to graphic functions according to literature, case studies analyzed and, sometimes, assumptions when useful information cannot be taken from literature and case studies.

Sterman (1992: 10) points out: "The skilled modeller uses all available information sources to specify the relationships in the model (numerical data, interviews, direct observation and other techniques)".

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[10] A system exists and operates in time and space.

[11] A model is a simplified representation of a system at some particular point in time or space intended to promote understanding of the real system.

[12] A simulation is the iteration of a model in such a way that it operates on time or space to compress it, thus enabling one to perceive the interactions that would not otherwise be apparent because of their separation in time or space.

The software used for the computer simulation is Vensim PLE for Windows Version 5.4d with the following settings:

INITIAL TIME: 0;

FINAL TIME: 5

TIME STEP: 0.125

UNITS FOR TIME: 1 generation (the software Vensim simulates the model every generation).

Managing family ownership: the role of private banking and private equity

Keeping family firms innovative across generations is vital for the continuity of family-firm relationships. To be innovative over time a firm needs to preserve an entrepreneurial orientation and accumulate an appropriate set of resources (Schwass, 2005). It also needs to combine and recombine these resources through dynamic capabilities in order to respond to dynamic environmental requirements (Teece, Pisano and Shuen, 1997; Zahra, and George, 2002).

In all these activities, family owners play a crucial role, as they can directly or indirectly provide the entrepreneurial resources as well as maintain a high level of entrepreneurial orientation (Aronoff, Ward 2001; Carlsson, 2001). First of all family owners are a source of key knowledge and experience that can be used both to explore and to exploit new business opportunities. The owners' external network (external social capital) is also a source of knowledge and other entrepreneurial resources. The internal social capital is instead essential to integrate other resources (knowledge in particular)[13] and to activate dynamic capabilities (Chirico 2006a; Chirico 2006b; Chirico 2006c). Internal social capital captures the quality of the relations among family owners (Salvato 2006; Salvato, Pernicone and Chirico 2006).

Managing family ownership is a governance process, which is extremely important in order to keep family firms innovative and profitable over time (Neubauer and Lank 1998).

. This governance process includes several activities such as:

- Managing the relationships between active and non-active shareholders in order to keep ownership cohesion and support the firm's leadership;
- Managing the owners' turnover: entrances and exits due to succession processes or to shares transfer among family members.
- Opening the family firm equity to non-family members.

Other governance tools contribute to the family ownership management. At family level we mention family agreements and family councils, which are useful to keep the family cohesion and to transmit the values of responsible ownership to the new generations. At firm level we mention: a) the board structures and rules and b) the organisational structures and rules. An appropriate combination of governance and

[13] For an analytical study on knowledge integration in family firms, see Chirico and Salvato (2008).

organisational tools can be used to support family firm leadership, to reduce tensions among active family members and to encourage corporate entrepreneurship.

Generation after generation ownership structures become larger and more diverse, with a differentiation of roles and interests. Consequently, the family ownership management become more complex. We hypothesise that there is a critical threshold of complexity; family and firm governance tools can extend this threshold up to a limit where the impact of family ownership on performance becomes negative. When the threshold is reached, a family firm can survive only with a radical ownership restructuring. In this restructuring, some family members usually invest a large amount of their private assets and / or they need private equity services. In this critical phase private bankers can play a strategic role offering an integrated platform of services (from asset management to trade financing and private equity).

We try to capture this phenomenon through an extended version of the FITS model in which the corporate entrepreneurship process is split in two sub-processes: exploration and exploitation. The increase of family owners also increases the external social capital with a positive effect of the exploration process. Until the ownership complexity threshold is reached the impact of an increase of family owners on exploitation is also positive, as the internal social capital is used to keep the owners' commitment to realise the new business opportunities. When the complexity threshold is reached the impact becomes negative: the more the family ownership is fragmented the lower the internal social capital. This relationship has a negative impact on the family firm dynamic capabilities, reducing the capacity to implement new business opportunities. Consequently, the profit form new opportunities decreases, and the family firm become less profitable. On the other end the tensions among family owners increases the pressure to pay higher dividends. This is also due to the erosion of psychological ownership. A higher percentage of dividends will reduce the firm self-financing and solidity. At the same time, more dividends increase private assets, which can be used to restructure the family firm ownership.

Figure 3 illustrates the extended version of FITS model.

INSERT FIG. 3 APPROX. HERE

We run several simulations of the above-described model to analyse the impact of ownership structure on firm performance under different contingencies. In particular we simulate:

a) Family firms with a small group of family shareholders versus family firms with a large group of shareholders.
b) Effective versus less effective governance and organisational structures and rules (i.e. higher versus lower complexity tolerance); this parameter is captured by the FS (Family Shareholder) critical threshold.
c) The decision to use private assets (and possibly private equity) to reduce the number of family shareholders

The simulations are illustrated and discussed in the following section.

Simulation findings

The following graphs illustrate the main simulation findings.

Comparing family firms with a small and with a large number of shareholder

INSERT GRAPH 1 APPROX HERE

The first simulation keeps the number of shareholders constant and small over a period of five generations, while in the second simulations family shareholders grow from 1 to 45. The two extreme cases produce divergent results in term of innovation, firms' performance and private assets accumulation as it is shown in the following graphs.

INSERT GRAPHS 2 AND 3 APPROX. HERE

Exploration is much higher in the firm with a larger number of family shareholders, which provide the external social capital and the knowledge-based human capital that is exploited in exploring new business opportunities. The exploitation dynamics is more complicated. Until the second generation a family firm with more shareholders shows more business opportunities exploited as a consequence of its higher level of exploration. After the second generation the firm with more shareholders is affected by the tensions among shareholders. These tensions will compromise its implementation capacities; thus the number of new business opportunities exploited will decrease below the level shown by the firm with few shareholders.

INSERT GRAPHS 4 AND 5 APRROX HERE

The dynamics described above were amplified when we observed the firms' performance measured as accumulated profit. In fact, while the first firm (with a stable a small group of shareholders) shows a profit growth in line with its exploitation capacities, the second one (with an increasing number of shareholders) shows a decreasing profitability due to a combination of negative phenomena: its exploitation capacities are eroded by shareholders conflicts; the same conflicts amplified the pressure pay higher dividends.

Comparing effective versus ineffective governance (and organisational) structures and rules

For these simulations we use the case of a family firm with a large group of family shareholders and we vary the family shareholders critical threshold. This parameter captures the idea that an appropriate set of governance and organisational tools helps in managing large groups of shareholders. Thus a small value of FS critical threshold (4 in our simulations) means ineffective governance and organisation, while a high value (20 in our simulations) means effective governance and organisations.

The simulations results are illustrated in the following graphs.

INSERT GRAPHS 6,7 AND 8 APPROX HERE

The exploitation capacities of the two firms are the same for the first two generations when shareholders are manageable even with ineffective governance and organisation. After the second generation, the impact of governance and organisation becomes significant. One company shows a much higher level of exploitation capacities. These results are reflected also in the firms' performance. The firm with more effective governance and organisation has good performance until the fourth generation, while the ineffective firm shows bad performance starting from generation

3. The private assets dynamics is more complicated. Pressures to pay higher dividends increase for the ineffective firm since generation 2. These pressures are relatively lower for the effective firm until generation 4. Consequently, the self-financing of the latest firm is higher as relatively lower dividends are paid to shareholders.

Using private assets (and private equity) to restructure family ownership

In the last set of simulations, we keep the case of the firm with ineffective governance and organisation and we use private assets (in combination with private equity) to compact the family ownership. We assume that this decision is taken when the value of private assets is higher than the accumulated profit. This assumption capture the idea that when private fortunes are higher than the firm value, some shareholders are less committed to the family firm and, thus, they more ready to leave.

INSERT GRAPHS 9,10 AND 11 APPROX HERE

Ownership restructuring starts during the fourth generation, when private assets become higher than firm's value. The effect is beneficial in term of firm performance as the exploitation capacities increase and pressures to pay dividends decrease. The latest dynamics is also reflected by the private assets evolution, which slows down after the ownership restructuration.

Trans-generational family firms tend to become less performing in the absence of a strong leadership figure in the family. In fact the passing of ownership from father to sons is usually accompanied by a fragmented ownership with no clear leadership figure.

Clear leadership must be identified in the family in order to restore effective performance in the firm. The psychological impact of succession onto the heirs fosters the ego needs of the individuals and unnecessarily elongate the time span required to re-establish a new family leader.

When the features mentioned above characterize the succession of a family firm, private banking and private equity are useful tools to re-establish family and firm leadership.

In the case of family "A" dividends had been declared on the basis of low payout ratios, thus private wealth was insufficient for anyone single heir's buyout purposes. Unable to receive his brothers' acceptance as the new family leader, he approached an investment bank to asset the possibility of taking the family firm public. The listing requirements however where such as, that an IPO was not a viable alternative in the short term. He thus approached a private bank for assistance.

Through the use of a family foundation combined with escrow agreements, the private bank established a level playing field for all brothers/shareholders to receive immediately their fair share in liquid assets upon condition they would pledge them against the facility the bank granted their brother who preferred to continue running the family firm instead of receiving his share in cash. They agreed to do so because the private bank also offered its services to identify private equity investors for one third of the firm's equity and institutional investors to underwrite a mezzanine debt issue for another third.

Even though the private equity investor accepted to realize his gain through either an IPO or a repurchase agreement by the executive shareholder, the mezzanine issue placed an additional service requirement on the company's cash flow. Yet, the capital structure of the firm was sufficiently sound to allow an investment bank identified by the private bank to eventually take the company public, for the private equity investor to realize a gain on disposal, and for the brothers to free their assets from the pledge.

Family firm "B", already at its third generational transfer and engaged in a capital-intensive operation such that private assets were a minimal fraction of those invested in the firm can represent a different example. The firm had been for past generations a vineyard with traditional wine making methods, in his tenure the family member in charge of the family and the firm was faced with the challenges posed by competitive forces in the industry and decided to start producing industrially a low alcohol sparkling wine to compete with US wine coolers, a product much more in vogue as a cocktail drink for ladies than hard alcoholic beverages, as well as taking over a competitor's very visible brand aperitif drink.

He thus approached his private banker to discuss the possibility of securing facilities to purchase the competitor's drink. After a review of the financial resources required and the strain the additional debt service would cause to his company, the bank advised him not to proceed with the purchase but instead to create some liquid assets. So they proceeded to spin off from the firm a bottling assembly line, the patent for the low alcoholic sparkling wine and its relative US distribution contract into a new company, which they then auctioned to the best bidder amongst major hard alcoholic beverages manufactures. Within eighteen months the "newco" was sold to a major for a cash price greater than half of the original value of the family firm. As the family firm was ready to plan for the fourth generational transfer the family leader decided not to utilize the proceeds of the sale to purchase the competitor's drink but instead to diversify into real estate so as to satisfy entrepreneurial needs of those of his children who were not interested in the family firm and managed to pass the leadership of the family business to his daughter who is now also the family leader.

Conclusive remarks

In this paper we used a computer-based simulation to analyse the multifaceted and complex phenomenon of family shareholdings. Through a system dynamics model (based on the FITS model) we contribute to the research on the relationships between family shareholdings and firm performance. Our simulations show the negative effects of the ownership fragmentation, which reduces shareholders' commitment and increases pressures to drain resources from the firm to the families. Appropriate governance and organisational tools can reduce this negative impact as they help managing a large group of shareholders with different roles and interests. These tools can be combined with a strategic use of private assets. Dividends are invested and form a private patrimony that can be used to reduce the ownership fragmentation, for example through family buy-outs. Private bankers who integrate asset management with private equity services are better positioned to support entrepreneurs in managing the succession process. Moreover, when a private banker add private equity services, he/she can exploit a superior knowledge of his/her customer and; he/she can leverage on previous relationships with the customer to build a strong

feeling of mutual trust. These ingredients are very useful to manage the private equity operation; in particular they can speed-up the transformation process.

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Figures and graphs

Figure 1: Simplified version of the FITS model without feedback loops

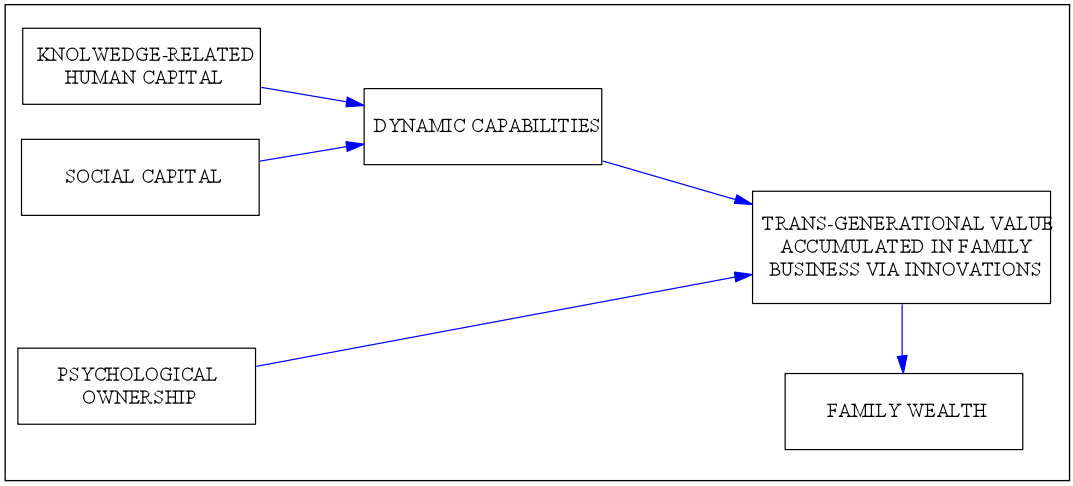


Figure 2: Feedback loops of the model

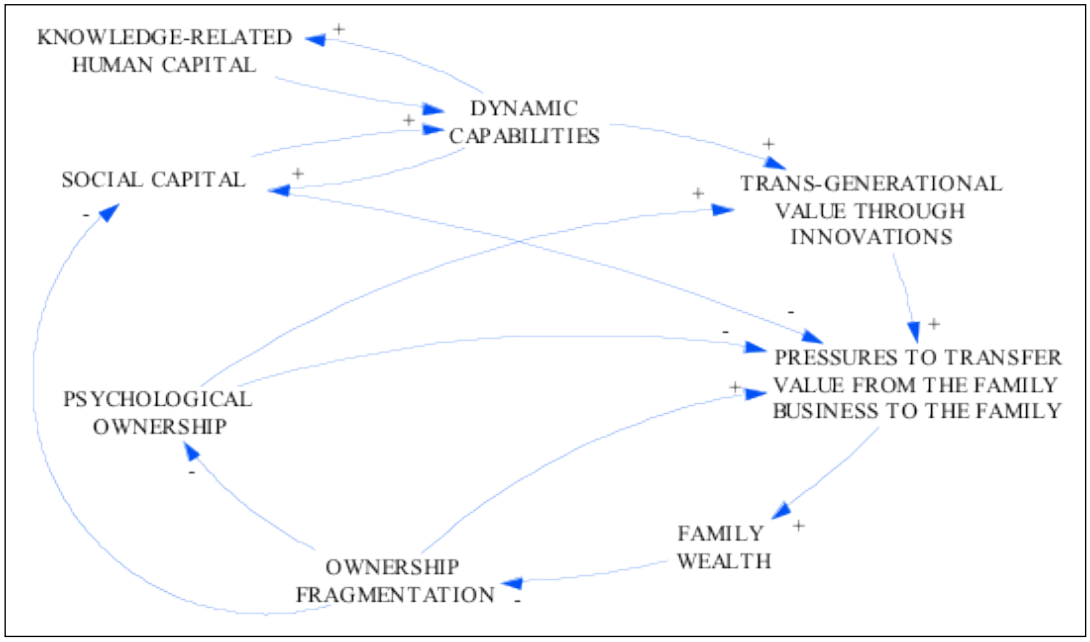
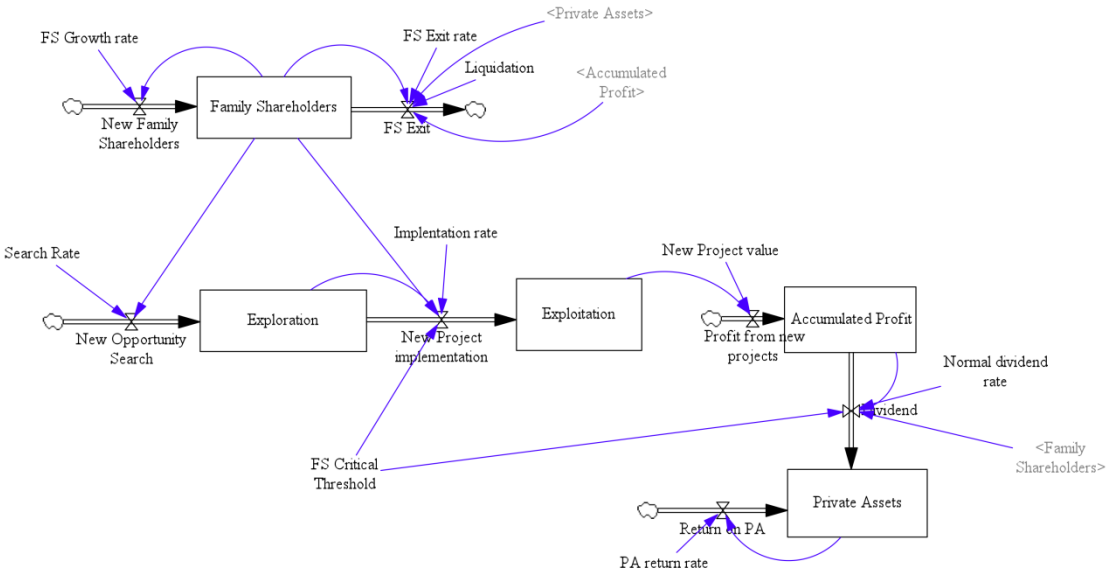
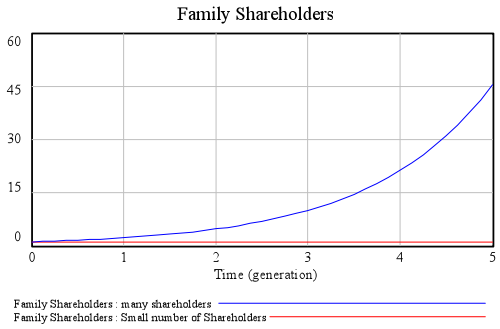


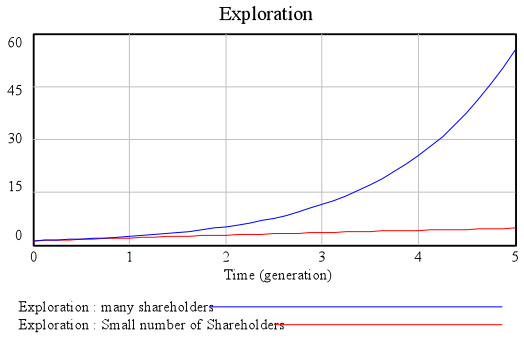
Figure 3. Ownership structure and firm performance



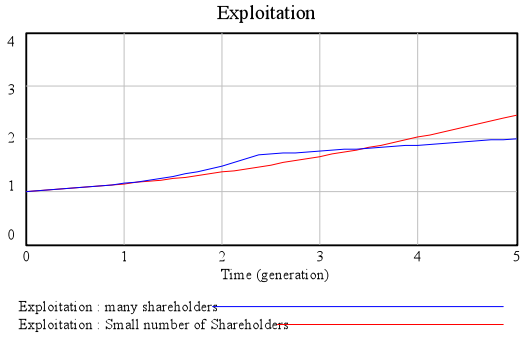
Graph 1: Family shareholders evolution: few versus many shareholders



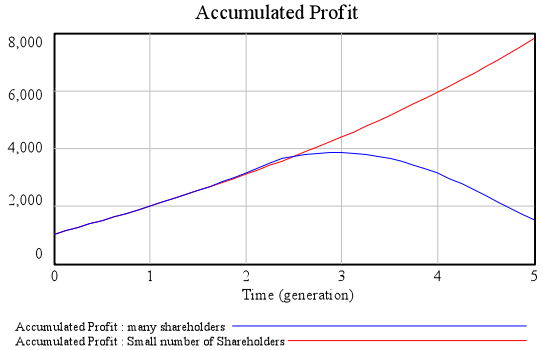
Graph 2: Exploration capabilities evolution: few versus many sharehokders



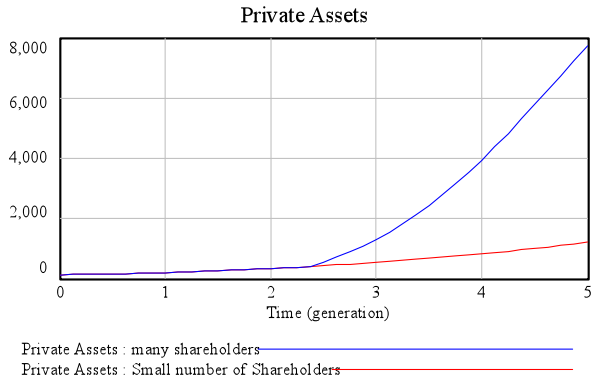
Graph 3: exploration capabilities evolution: few versus many shareholders



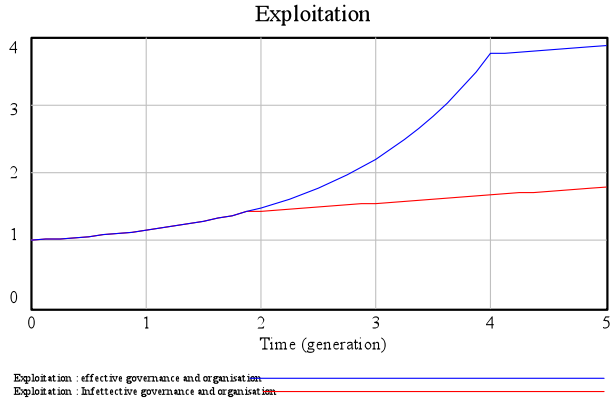
Graph 4: accumulated profit evolution: few versus many shareholders



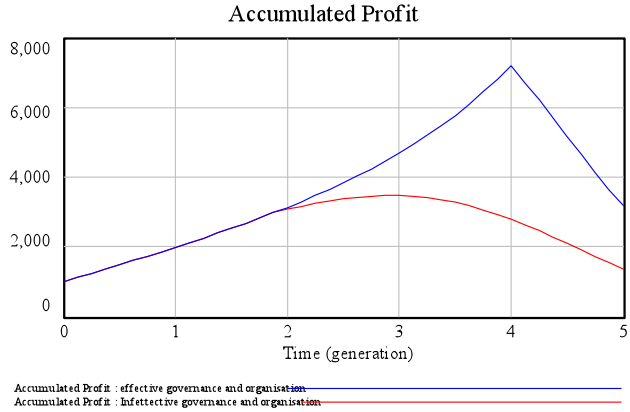
Graph 5: Private assets evolution: few versus many shareholders



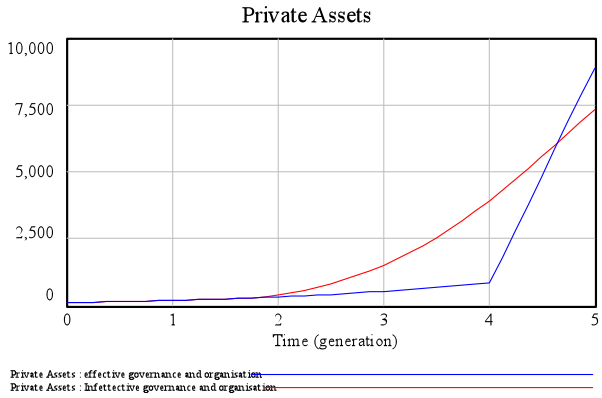
Graph 6: Exploitation capabilities evolution: effective versus ineffective governance



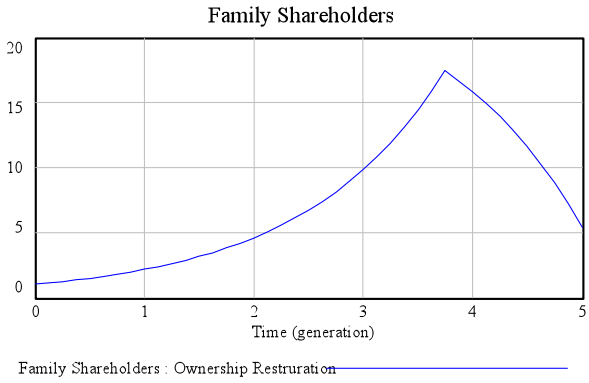
Graph 7: Accumulated profit evolution: effective versus ineffective governance



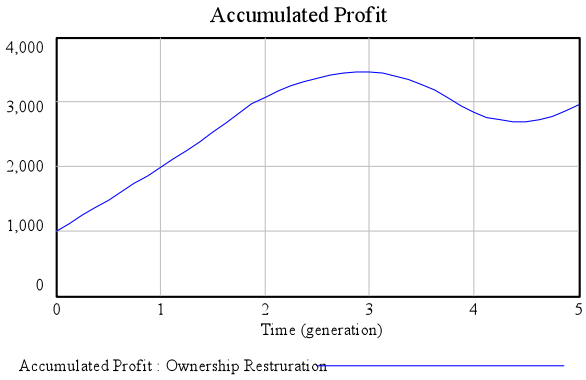
Graph 8: Private assets evolution: effective versus ineffective governance



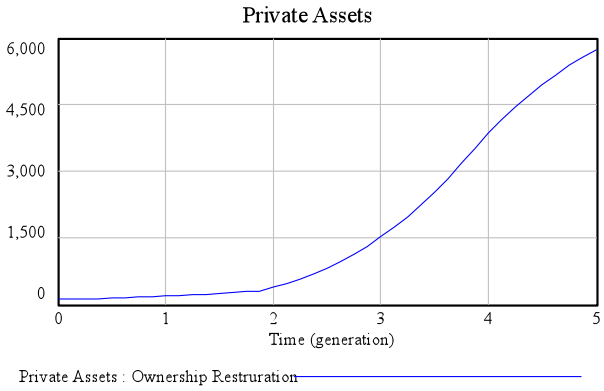
Graph 9: Private equity and private banking effects: family shareholder evolution



Graph 10: Private equity and private banking effects: accumulated profit evolution



Graph 11: Private equity and private banking effects: Private assets evolution



Equation list

Accumulated Profit= INTEG (+Profit from new projects-Dividend, 1000) |

Family Shareholders= INTEG (+New Family Shareholders-FS Exit, 1)

FS Critical Threshold= 4

FS Exit rate=1.2

FS Exit=IF THEN ELSE(Private Assets<=Accumulated Profit, FS Exit rate*Family Shareholders, (FS Exit rate*Family Shareholders)+Liquidation) |

FS Growth rate=2

Dividend=IF THEN ELSE(Family Shareholders<=FS Critical Threshold, Normal dividend rate*Accumulated Profit\, Normal dividend rate*Accumulated Profit*Family Shareholders)

Exploitation= INTEG (New Project implementation,1)

Exploration= INTEG (New Opportunity Search-New Project implementation, 1)

Implementation rate=0.1

Liquidation= 20

New Family Shareholders=FS Growth rate*Family Shareholders

New Opportunity Search=Search Rate*Family Shareholders

New Project implementation=IF THEN ELSE(Family Shareholders<=FS Critical Threshold, Implentation rate*Exploration\, Implementation rate*Exploration/Family Shareholders)

New Project value=1000

Normal dividend rate=0.05

PA return rate=0.05

Private Assets= INTEG (Dividend+Return on PA,100)

Profit from new projects=New Project value*Exploitation

Return on PA=Private Assets*PA return rate

Search Rate=1