

# **Diagnosing Problem Areas and Proposing Therapy for Family Businesses**

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## **Abstract**

Family businesses, irrespective of scale and field of operation, legal form, industrial activity, level of socio-political activity and market development, play a significant role in the strength and dynamism of the worldwide economy and its long-term stability. They have been a backbone of corporate life across nations forming a corner-stone of socio-economic development. Across Europe 70-80% of all enterprises are family businesses and totally they constitute 40-50% of all employment. In Europe the family business sector is dominated by Small and Medium Sized Enterprises (SMEs), and particularly by micro enterprises with less than 10 employees. Family businesses are active in all sectors of the economy. Most of the family businesses can be found in traditional and labor intensive sectors. However, a shift towards more modern industries is taking place.

The family businesses involve three overlapping elements that make them different from other types of business, namely the family, the business, and the ownership. Although many of the challenges facing family businesses also concern SMEs in general, some affect family firms more specifically, and others are exclusive to only them. Some challenges stem from the environment in which the firms operate (inheritance, taxation etc.), others are connected to the family firm's internal matters, such as balancing the business, family and ownership aspects, succession and internal conflicts between family members and ascertaining professional business management. Family businesses compared to other businesses are characterized by two dynamic and sometimes conflicting reference systems; the family (the emotional) and the company (the professional). Private and personal interests may be transferred to the company and vice versa. As same persons may have different overlapping roles in family business it is not easy to find balance at times.

Despite the fact that family businesses contribute significantly to economic activity and employment, comparatively little research has been carried out to identify the needs, aspirations and challenges of European family businesses. The study of family businesses is interdisciplinary in nature, involving different fields, such as economics, organizational behavior, law, tax, psychology, sociology, computing etc. to name a few.

Currently a cross-cultural study of family businesses in Finland and Greece is undertaken. It includes an extensive literature review for deeper understanding of the research variables, as well as qualitative and quantitative research including personal site visits and interviews, as well as a structured questionnaire for collecting rigorous data for statistical analysis of totally 200 family businesses in both Greece and Finland. Based on the result of the study an Agile Risk Management framework for diagnosing problem areas for family businesses was developed. This framework is further developed to the Diagnosis and Self-Therapy model and a corresponding electronic tool for diagnosing problem areas and proposing therapy for family businesses.

This paper describes the study and some of its main results, the Agile Risk Management framework, the Diagnosis and the Self-Therapy Model aiming to be used by family members for helping them to recognize potential problem areas and for proposing possible solutions. The web-page of the project will also incorporate a meeting point for family businesses, where they can exchange knowledge, discuss problems and find partners.

## Keywords

Family businesses, Agile Risk Management framework, Diagnosis and Self-Therapy model, Electronic tool

## 1. Introduction

### *1.1 Characteristics of family businesses*

Family firms represent the oldest form of business and also the predominant form of business organization in the world<sup>1</sup>. Despite this, scholarly research of family businesses is since the 1970s a relatively new scientific field.

Numerous attempts have been made to articulate conceptual and operational definitions of family businesses. Most efforts have focused on defining family businesses in terms of distinguishing them from non-family businesses and seem to revolve around the role of the family in the vision of the firm, the resources and capabilities, as well as control mechanisms used in the firm<sup>2</sup>. Research has been undertaken on various levels, such as individual, interpersonal/group, organizational and societal level<sup>3</sup>.

A main characteristic of family businesses is the dominance of management from within the owning family. In this context, paternalism and nepotism/favoritism are often prevalent in family firms, as is the existence of emotional and informal decision making. This affects the *business culture* of the family business. Bases for creating this type of culture are the moral values. Business culture is defined as “*the shared values in which a particular group of people believes, which remain stable over time even if a team member leaves*”<sup>4</sup>. Family businesses involve three overlapping elements that make them different from other types of business, namely the family, the business, and the ownership<sup>5</sup>. Families spend a lot of time

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<sup>1</sup> R. LaPorta, F. Lopez-de-Silanes and A. Shleifer: Corporate ownership around the world. *Journal of Finance*, 54, 471-517. 1999.

<sup>2</sup> J. J. Chrisman, J. H. Chua and R. A. Litz: Commentary: A unified perspective of family firm performance: An extension and integration, *Journal of Business Venturing*, Vol. 18, Iss. 4, 467–472. 2003.

<sup>3</sup> P. Sharma: An Overview of the Field of the Family Business Studies: Current Status and Directions for the Future, in Poutziouris, P.Z. *Handbook of Research of Family Business*, Northampton MA. Edward Elgar Publishing, USA. 2004

<sup>4</sup> D. Denison, C. Lief and J. L. Ward: Culture in Family-Owned Enterprises: Recognizing and Leveraging Unique Strengths, *Family Business Review*, Vol. 17, Iss. 1, pp. 61–70. 2004.

<sup>5</sup> R. Taqiuri and J. Davis: Bivalent Attributes of the Family Firm. Reprinted in 1996 in *Family Business Review* Vol. 9, Iss. 2, pp. 199–208. 1982.

and money trying to sort out questions of family governance, ownership structures and succession. Figure 1 implies the following principles: Each segment represents a family member with an interest in the family business and a point of view about what should be happening. By other words, any individual in a family business system falls in one of the seven sectors created by the three circles of corporate governance.

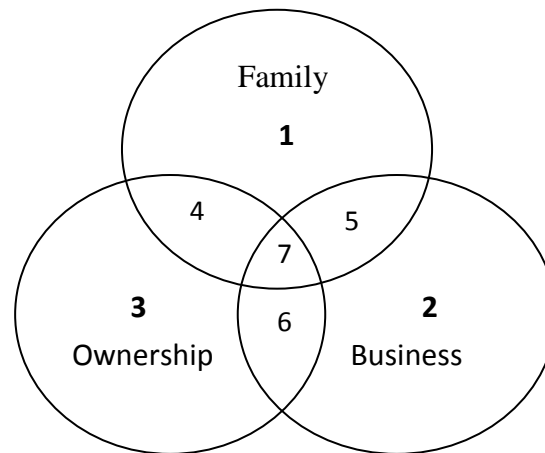


Figure 1: Interrelationships in Family Businesses

The seven different segments can be explained as follows:

1. Family management and decision making.  
Seizing opportunities are often provided among family members as shareholders. External investors are individuals and institutions who own part of the business, but do not work within the business and are neither members of the family. Examples of external investors are venture capitalists, banks and/or business angels. They are interested in return on their investment and often expect business decisions to be clearly separated from family dynamics.
2. Management and employees are neither owners nor family members.  
They are concerned with career prospects and job security. Many family businesses recognize the problems of recruiting and retaining the best employees; however many times a conflict can arise and the business may be overlooked in favor of irrational and emotional decision making. Opportunity emergence can be sudden and intuitive and decision making in the opportunity-seizing process is often based on individuals.
3. Owners as managers.  
Family firms are in general not growth oriented but innovative and flexible. General management can create conservative thinking and behavioral patterns that prevent

opportunity recognition<sup>6, 7</sup>. Sometimes shares or equity linked rewards are given in return for recruiting and retaining key non-family employees. However these are usually small stakes, strictly controlled and not easy to realize.

4. Inactive owners.

The ownership of a family business that survives the first generation often succeeds from a controlling owner to family members who do not work in the business. Their interests tend to be a combination of the expectations of external investors blended by a sense of family responsibilities.

5. Family.

Every member of a business family has an investment in the family business whether or not they are actively involved in ownership or employment. Long-term trust and loyalty in family businesses are characteristics of family firms, such as *responsible ownership* and *interest in social behavior* can increase choice of value added opportunities.

6. Family employees.

Family members who work in the business but do not own shares will be concerned with career development. The family employees' decision to grow the business may be tempered by the fact that their efforts will benefit the passive owners/relatives. These feelings are sometimes caused by a blurring of the distinction between rewards for employment and return on investment.

7. The controlling owner.

Someone who owns a business occupies a senior role in management and the family will face many conflicting choices during their business and private life, especially when it comes to succession. The new generation of the family business entrepreneurs may be interested in opportunity estimating and opportunity seizing in order to competing in the markets<sup>8</sup>.

Same persons may have different overlapping roles in the family business and this can lead to difficulties in finding a balance between the different elements. Also private and personal interests may be transferred to the company and vice versa.

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<sup>6</sup> G. Corbetta and C. A. Salvato: The Board of Directors in Family Firms: One Size Fits All?, You have full text access to this content, *Family Business Review*, Volume 17, Iss. 2, Article first published online: 21 June 2004.

<sup>7</sup> M. Koiranen: *Juuret ja siivet: perheyriyksen sukupolvenvaihdos*. Edita, Helsinki. 2000.

<sup>8</sup> M.A., Gallo: The Family Business and Its Social Responsibilities, *Family Business Review*, Volume 17, Issue 2. 2004. Article first published online: 21 Jun, 2004

Family businesses tend to focus on the firm's long-term sustainability rather than realizing short-term profits and on realizing generational changes in ownership and management. In line with this, family businesses are on average older than non-family businesses. When a firm is transferred to the next generation, it is not only financial assets which are passed on, but also social endowment and cultural capital. The latter refers, for example, to the value system, i.e. the importance of honesty, credibility, modesty, respect etc. On the one hand, this has led to particular emphasis being placed on the personal commitment and engagement of family members within the enterprise and, on the other hand, on the firm's engagement in (local) Social Responsibility (SR) activities.

### *1.2 Aims of the paper*

The aims of this paper are to:

- i. describe the FAMBUS research programme that aims to:
  - compare family businesses in Finland and Greece;
  - build a diagnosis and self-therapy tool to be used by family businesses for helping them to recognize potential problem areas and for proposing possible solutions;
- ii. present the Agile Risk Management framework based on the identification of family business characteristics that may have a bearing importance for the success and sustainability of family businesses;
- iii. describe the Diagnosis and Self-Therapy model to be used by family businesses for recognizing potential problem areas and for proposing possible solutions.

The web-page of the project will also incorporate a social networking meeting point for family businesses in the form of a blog, where they can exchange knowledge, discuss problems and find partners.

## **2 Goals and methodology**

### *2.1 Motivation of the FAMBUS study*

This study is motivated by three important issues<sup>9</sup>, namely:

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<sup>9</sup> K. Siakas, S. Vassiliadis and E. Siakas: Family businesses: A diagnosis and self therapy model. *International Journal of Entrepreneurial Knowledge*, Issue 1/2014, volume 1, pp. 28-44, ISSN:2336-2960. 2014.

- i. *The observation that family businesses have a significant role to play in the strength and dynamism of the European economy and long-term stability.*

Family businesses play a significant role in the strength and dynamism of the worldwide economy and its long-term stability. Across Europe 70-80% of all enterprises are family businesses and they constitute totally 40-50% of all employment<sup>10</sup>. In Europe the family business sector is dominated by SMEs, and predominantly by micro enterprises with less than 10 employees. Family businesses are active in all sectors of the economy. Most of the family businesses can be found in traditional and labor intensive sectors. Nevertheless, a shift towards more modern industries is taking place.

- ii. *The importance of family businesses in both the Greek and the Finnish economy.*

Despite the differences in economic structure and culture both Greece and Finland are small countries in the outskirts of Europe with a high percentage of family businesses. Greece relies on the service sector and in particular on tourism, whilst Finland counts on a highly industrialized manufacturing sector and is one of the economically and politically most stable countries in the world. Culturally Finns are known to be hard-working with an introverted nature and direct communication style, compared to Greeks who are more outgoing and present a high value of personal relationships and networks.

- iii. *The need for in-depth research about the dynamics of family businesses, the difficulties they face (strategy, succession, internal conflicts etc.) and factors influencing their survival (endurance) and sustainability.*

Despite the fact that family businesses contribute significantly to employment and economic activity, comparatively little research has been carried out to identify the needs, aspirations and challenges of European family businesses. The family businesses involve three overlapping elements that make them different from other types of business, namely the family, the business, and the ownership. Although many of the challenges family businesses face also concern SMEs in general, some affect family firms more specifically, and others are exclusive to only them. Some challenges stem from the environment in which the firms operate (taxation, inheritance etc.), others are connected to internal matters of the family business, such as balancing the business, family and ownership aspects, succession and

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<sup>10</sup> I. Mandl: Overview of Family Business Relevant Issues - Final Report, Vienna. Austrian Institute for SME Research, 2008.

internal conflicts between family members and ascertaining professional business management. Private and personal interests may be transferred to the company and vice versa. As some persons may have different overlapping roles in the family business it is not easy to find balance at times.

## *2.2 Research objectives and hypothesis*

Despite the fact that family businesses are (i) the oldest types of businesses, (ii) the predominant type of businesses worldwide, (iii) the businesses that contribute significantly to economic activity and employment, comparatively little research has been carried out to identify the needs, aspirations and challenges of family businesses in general and of European family businesses in particular. Comparative cross-cultural research can even more rarely be identified in the international family business literature and comparisons between family businesses in Finland and in Greece have never been undertaken as far as we know.

The main objectives of this study are:

- i. To identify characteristics that have a bearing on successful implementation and operation of family businesses. These characteristics are drawn from an extensive literature review and from the qualitative and quantitative study in Finland and Greece. In order to investigate the research question the family business characteristics have been grouped into two categories: business characteristics and family characteristics. The characteristics are divided in six groups aiming to help identify strengths and areas in need of improvement.
- ii. To construct a Diagnosis and Self Therapy model that will take family and business factors into consideration. The model aims to diagnose potential problems and to propose solutions.
- iii. To create an electronic tool/instrument of the Diagnosis and Self Therapy model.
- iv. To verify the model and to test the electronic tool.

## *2.3 Hypothesis*

Following the motivation and the research question derives the hypothesis of this research:

*‘The family businesses face similar challenges independently of country of origin’.*

Two variables are identified: the family and the business. Four distinct orientations stemming from the relationship between the two variables are observed in the literature<sup>11</sup> and depicted in the FAMBUS typology<sup>12</sup> in figure 1.

Figure 1: The FAMBUS Typology

Family Influential	<i>Family first enterprises</i>	<i>Family-Business Balance</i>
Family Insignificant	<i>Agile enterprises</i>	<i>Business first enterprises</i>
	Business Insignificant	Business Influential

- *Family first enterprises*: Family goals take precedence over business goals.
- *Business first enterprises*: Business goals take precedence above everything else.
- *Balance between family and business*: Family Business enterprises that seek to balance the family and the business goals. This is the most challenging type of family business, but also the most rewarding when a successful balance is achieved.
- *Agile Enterprises*: Without a clear focus neither on family nor on business goals. This orientation is consuming and requires vigilance, flexibility and agility. The family business needs to be alert and meet new requirement in a lean and swiftly manner.

Research indicates that family businesses with common clear goals on one or the other orientation tend to perform better than family businesses without clear goal<sup>13</sup>. However, the literature provides contradictory evidence regarding the performance of family-owned firms<sup>14</sup>. Four main issues have been identified to influence the performance of a family business; namely industry, firm governance, firm characteristics and management (founder). Scholars also emphasize that ambidextrous family businesses perform better both on the family and the business dimensions<sup>15</sup>.

<sup>11</sup> J. Ward: *Keeping the Family Business Healthy: How to Plan for Continuing Growth, Profitability, and Family Leadership*. San Francisco, CA: Jossey-Bass. 1987.

<sup>12</sup> K. Siakas, E. Georgiadou and E. Siakas: An Agile Framework for Diagnosing Problem Areas for Family Businesses, *Business-Related Scientific Research Conference 2014 (ABSRC 2014)*, Milan, Italy, December 10-12 2014.

<sup>13</sup> W.G. Dyer Jr.: The family: The missing variable in organizational research”, *Entrepreneurship Theory and Practice*, Vol. 27, Np. 4, pp. 401-416. 2003.

<sup>14</sup> W. G. Dyer: Examining the "Family Effect" on Firm Performance, *Family Business Review* 19, pp. 253-273. 2006.

<sup>15</sup> R. Basco and M.J. Perez Rodriguez: Studying the Family Enterprise Holistically: Evidence for Integrated Family and Business Systems. *Family Business Review* 22(1): 82-95. 2009.



## *2.4 Contribution*

The creation of the FAMBUS Diagnosis and Self Therapy model is based on the results of a quantitative study (a survey comprising an on-line structured questionnaire completed by 200 Finnish and Greek family businesses) and a qualitative study (personal site visits and interviews comprising 20 interviews in both Finland and Greece) for obtaining deeper understanding of the research problem. Correlations are drawn between family businesses in Greece and Finland, both small periphery countries, members of the EU, where family businesses possess a dominant role in their economies. However, the business structure and hierarchy are rather different as well as the business conduct and culture. The comparative analysis is original and unique and is anticipated to add to the existing knowledge in the field.

The results of the study are disseminated directly to the participating family businesses through different streams of information such as local media and branch interest establishments. The use of social media, both as a meeting and communication platform for involved partners and for viral marketing, is also a contemporary and novel diffusion technique anticipating bringing stakeholders together for knowledge sharing and potential future collaboration.

## **3 Research results and discussion**

The study reported in this paper aims to support family businesses in identifying problem areas and to reflect on proposed solutions as well as to meet other family businesses for networking and problem solving. The contribution of the study consists of:

- i) the identification of the characteristics of the family businesses;
- ii) the Agile Risk Management Framework;
- iii) the Diagnosis and Self-Therapy Model;
- iv) the equivalent electronic tool to be used by family businesses for identifying potential problem areas and for suggestions of solutions.

### *3.1 The Agile Risk Management Framework*

The insights gained from both the literature review and the analysis of the results of the study were encapsulated in an Agile Risk Management Framework, depicted in Table 1, where potential jeopardy characteristics of the family business are grouped and listed.

Table 1: The Agile Risk Management Framework<sup>16</sup>

<b>Vision &amp; Strategy</b>	<b>Administration</b>	<b>Motives</b>
<ul style="list-style-type: none"> <li>• Level of Formality</li> <li>• Communication of Vision &amp; Strategy</li> <li>• Decision Making Process</li> </ul>	<ul style="list-style-type: none"> <li>• Allocation of Roles &amp; Responsibilities</li> <li>• Predefined Mechanisms</li> <li>• Decision Making</li> <li>• Use of ICTs, Marketing Tools, External Consultants</li> </ul>	<ul style="list-style-type: none"> <li>• The motives for creating the business (pull/push)</li> <li>• The business/work climate in the period of creation</li> <li>• External support</li> </ul>
<b>Succession</b>	<b>Participation in Networks</b>	<b>Conflicts</b>
<ul style="list-style-type: none"> <li>• Succession plan</li> <li>• Criteria for choosing successor</li> <li>• Agreement of plan by other family members</li> <li>• Successor(s)' suitability                             <ul style="list-style-type: none"> <li>○ Value – stability – change</li> <li>○ Experience in the family business / other experience</li> <li>○ Education /training</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Exchanging knowledge</li> <li>• Gaining experience</li> <li>• New opportunities</li> <li>• Clusters</li> <li>• Access to scarce resources</li> <li>• International business activities</li> <li>• Building capabilities</li> <li>• Facilitation of internationalization of operations.</li> </ul>	<ul style="list-style-type: none"> <li>• The way decisions are taken</li> <li>• The wage-levels of family members</li> <li>• Employment of relatives in-law</li> <li>• Generation gap</li> <li>• Gender working in family business</li> <li>• Level of education</li> <li>• Different perceptions                             <ul style="list-style-type: none"> <li>○ of how things should be done</li> <li>○ of the future</li> </ul> </li> </ul>

### 3.2 The Diagnosis and Self-Therapy Model

The most important progress beyond the state of the art, is anticipated to be the novel family business Diagnosis and Self-therapy Model and the corresponding electronic tool, the final outcome of the project. To the extend of our knowledge such a model is entirely new. The aims are to create the electronic tool in three languages, namely English, Finnish and Greek for testing of the prototype by the family businesses that have participated in the study and for later use by any interested family business. The model is expected to aid family businesses to avoid difficulties at an early stage and to serve as a self-therapy tool. The website (<http://fambus.teithe.gr/>) that hosts the tool will also serve as a meeting and communication social media platform / forum for family businesses.

### 3.3 Discussion

The main results stemming from the family business Diagnosis and Self-Therapy model and equivalent electronic tool are expected to be very useful for family businesses that want to find an easy and cheap way of diagnosing potential problem areas and receiving improvement proposals instead of hiring expensive business consultants. Subsequently the web page for the

<sup>16</sup> Siakas, K., Georgiadou, E., Siakas, E. (2014). An Agile Framework for Diagnosing Problem Areas for Family Businesses, Business-Related Scientific Research Conference 2014 (ABSRC 2014), Milan, Italy, December 10-12

model/tool will also serve as a meeting/communication social media platform/forum for family businesses and other interested parts as well as a dissemination point for authorities, industry and academia. Viral marketing (word-of mouth) techniques will be used to spread the information of the project and subsequent activities.

Direct financial advantages may be difficult to measure, but if the project is successful and several family businesses find the advices useful then the direct and indirect financial benefits will not only be evident for the family business themselves but will also have a direct financial consequence on broader local as well as international level.

Further potential benefits will be improved collaboration between family businesses in the two countries. Also family businesses in other countries may find the tool important and gain added value in their operations.

#### **4 Conclusions and further research work**

Family Businesses differ from other businesses mainly in the fact that (a) family members are dominant leaders of the firm and (b) there is an emotional factor affecting the business. Succession is crucial for sustainability and continuation of the family business to subsequent generations. A strong organizational culture with robust values, open communication and trust are key issues for stability, pertinence and sustainability in times of financial turmoil.

In this paper we described the FAMBUS research carried out as a comparative study by Alexander Technological Educational Institution of Thessaloniki, Greece and University of Vassa, Finland. The aims of the research project are to identify characteristics of family business and potential problem areas through qualitative and quantitative reseach. Based on the results of the research solutions are proposed in order to support family businesses in identifying own problem areas, to reflect on proposed solutions and to meet other family businesses for networking and problem solving. The tools developed within the research project are the Agile Risk Management Framework, the Diagnosis and Self-therapy model and the subsequent electronic tool.

Future work will concentrate on testing the family business electronic tool for Diagnosis and Self Therapy. This tool is based on the characteristics identified in the Agile Risk Management Framework. Family businesses will be able to use the tool for the identification of potential problem areas and potential agile activities for their solutions.

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## Literature

- Basco, R. and Perez Rodriguez, M. J.: Studying the Family Enterprise Holistically: Evidence for Integrated Family and Business Systems. *Family Business Review* 22(1), pp. 82–95. 2009.
- Chrisman, J. J., Chua, J. H. and Litz, R. A.: Commentary: A unified perspective of family firm performance: An extension and integration, *Journal of Business Venturing*, Vol. 18, Iss. 4, pp. 467–472. 2003.
- Corbetta, G. and Salvato, C.A.: The Board of Directors in Family Firms: One Size Fits All?, You have full text access to this content, *Family Business Review*, Volume 17, Iss. 2, Article first published online: 21 June 2004.
- Denison, D., Lief, C., and Ward J.L.: Culture in Family-Owned. Enterprises: Recognizing and Leveraging Unique Strengths, *Family Business Review*, Vol. 17, Iss. 1, pp. 61–70. 2004.
- Dyer Jr., W. G.: The family: The missing variable in organizational research. *Entrepreneurship Theory and Practice*, Vol. 27, Np. 4, pp. 401–416. 2003.
- Dyer, W. G.: Examining the "Family Effect" on Firm Performance, *Family Business Review* 19, pp. 253-273. 2006.
- Gallo, M.A.: The Family Business and Its Social Responsibilities, *Family Business Review*, Volume 17, Issue 2. 1984. Article first published online: 21 Jun, 2004.
- Koironen, M.: *Juuret ja siivet: perheyriityksen sukupolvenvaihdos*. Edita, Helsinki. 2000.
- LaPorta, R., Lopez-de-Silanes, F. and Shleifer, A.: Corporate ownership around the world. *Journal of Finance*, 54, pp. 471-517. 1999.
- Mandl, I.: Overview of Family Business Relevant Issues - Final Report, Vienna. Austrian Institute for SME Research. 2008.
- Sharma, P.: An Overview of the Field of the Family Business Studies: Current Status and Directions for the Future, in Poutziouris, P.Z. *Handbook of Research of Family Business*, Northampton MA. Edward Elgar Publishing, USA. 2004.
- Siakas, K., Vassiliadis, S., Siakas, E.: Family businesses: A diagnosis and self therapy model. *International Journal of Entrepreneurial Knowledge*, Issue 1/2014, Volume 1, pp. 28-44, ISSN:2336-2960. 2014.
- Siakas, K., Georgiadou, E. and Siakas, E.: An Agile Framework for Diagnosing Problem Areas for Family Businesses, *Business-Related Scientific Research Conference 2014 (ABSRC 2014)*, Milan, Italy, December 10-12. 2014.
- Taqiuri, R. and Davis, J.: Bivalent Attributes of the Family Firm. Reprinted in 1996 in *Family Business Review* Vol. 9, Iss. 2, pp. 199–208. 1982.
- Ward, J.: *Keeping the Family Business Healthy: How to Plan for Continuing Growth, Profitability, and Family Leadership*. San Francisco, CA: Jossey-Bass. 1987.

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