

How can innovations in computer sciences and management reinforce family businesses towards the challenges of the new economy?

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Abstract: The revolution in informatics and communications technologies in combination with the application of innovative management methods in businesses, gave the opportunity to a plethora of family firms to synchronise not only their internal processes and capabilities but also their provided services. This project is aiming to present how Information and Communication Technologies (ICTs) and new management techniques can reinforce the Greek family businesses towards the challenge of the new economy. In this paper we examine if and how students from the department of Informatics (students who study ICTs) that come from a family business environment intend to use and apply their achieved knowledge from their studies. A small sample of students of the department of Informatics of the Alexander Technological Institute of Thessaloniki that are members of a family business are used in order to achieve insight into the research area. Early results are presented and future work is discussed.

Key words: family business, innovations, ICTs, management

Literature Review

The first step of this study will comprise a literature review aiming to present a complete view of the meaning, the status, the power, the social and financial situation of the family business, through the investigation and study of previous researchers' work. Below is an attempt to give a definition of family businesses.

Many researchers have dealt with issues regarding definitions of family businesses, as well as the opportunities and the challenges they face in the new economy.

Already in 1988, Perrow and Rogolsky posed the question "*What is a family business?*" There is much literature available on the discussion about how family business researchers have chosen to define family businesses (Wortman, 1995). According to Baines and Wheelock (1998) the family business is an inclusive term, which acknowledges a wide variety of formal and in-formal relationships between families and the businesses from which they gain their livelihoods. Jaffe and Lane (2004) agreed with Kenyon-Rouvinez (2000) stating that family business is a family that owns a business. But what is the real meaning of a family business?

According to Company Law (Law 2941/2001) there is no definition regarding family business. However, we consider that enterprises that are owned, managed and influenced by a family or families to be family businesses. In other words, in family businesses both ownership and policy making are dominated by family members.

This holds especially true for family businesses, since they tend to have a specific and distinct business culture (Denison et al., 2004). In contrast to public companies, family businesses are often managed by their owners or members of the owning family.

It can be considered that family businesses make a major contribution to economic growth. However, little Greek research has been done to identify their needs, aspirations and challenges.

Research Objectives

As McCollom (1990) claims qualitative research is particularly appropriate to the study of family business. The research design of qualitative research is a multiple-case embedded study. Multiple cases permit replication logic where each case is viewed as an independent experiment which confirms or not the theoretical background and the new insights. A replication logic yields more precise and generalizable results compared to single case studies (Eisenhardt, 1989; Brown et al., 1997; Yin, 2003).

For this reason this thesis is aiming to present how ICTs and innovative management methods can contribute to the empowerment of family business towards the challenges of the new economy.

The study will consist of two parts: part one being an explorative study in order to gain insight into to subject and in part two an in-depth investigation of the role of innovations, ICTs and management in family businesses:

Part 1 aims to:

- explore the meaning of family businesses;
- emphasize the role of family businesses in the Greek economy;
- analyze the problems that arise in family businesses due to the financial crisis;
- investigate and define the conflicts and how to achieve balance between family and enterprising goals;
- scrutinize the level and the importance of business strategy in family businesses;
- investigate ownership, role of leadership and management functions in family businesses.

Part 2, the main body of the study, aims to:

- investigate the existence/lack of ICT use, and technological applications as well as innovative methods in family businesses
- create a model incorporating guidelines for flexible adaptable and innovative managerial, technological and organizational structures facilitating development and success of family businesses

Research methodology and Data Collection

In this study a combination of different research methodologies, namely qualitative and quantitative research methodologies will be used in order to ensure reliable results.

In order to deepen the understanding of the field and to determine the research variables a qualitative research method using open-ended semi-structured interviews in selected family businesses will be carried out. Grounded theory (GT) developed by Strauss and Glaser (1967), or other suitable research methodology, such as the descriptive study (Peterson & Ault. Year) will be used to analyze the data in order to provide the variables of the main study. A descriptive study is a statistical study that helps to identify patterns or trends in a situation and thus in generating hypothesis on which further research may be based. Also secondary sources (news-papers, company internal documents, company slide presentations, company press releases, company web sites, company balance sheets and articles from magazines), conversations and observations in selected family business sample will be included in the research.

The following step is the quantitative research methodology that will include a survey using questionnaires referring to different members of a family business (owners, members, successors etc.)

The main survey will be a cross – sectional survey. This technique is used to gather information on a population at a single point in time (Kin, 2003). In this case a cross sectional survey would be a questionnaire that collects data on how members of a family business, urge to apply innovative ICT and management methods.

The data will be collected mainly through personal interviews, conversations and observations. Secondary sources such as newspapers, journal and conference articles, students' dissertations, slide presentations, library searching in universities and technological institutions, web searching, articles from magazines and more are also helpful to the whole content of the paper.

Firstly a sample of 100 students of the Department of Informatics of the Alexander Technological Institute that are members of a family business will be interviewed, and secondly interviews (or questionnaires, in cases that are besides Thessaloniki prefecture) will be conducted to the other members of their firms. The interviews that are referring to the students are aiming to double dimension results; to examine students and their personal side of view and also to observe the students as future active participants of their family firm. As far as the data that will be collected from the interviews of the other members of a family firm, is mainly referring to issues considering if and how new ICT and management methods can be implemented in family businesses and whether the new generation members having technological and managerial know-how can support their family firms by introducing an innovative breeze.

Furthermore, an analytical and multi structured questionnaire will be sent to approximately 500 family businesses that are activated in the Thessaloniki prefecture and in some cases personal interviews will be carried out, in order to observe and understand how firms work, if and in what degree use ICT's and weather they are eager to apply managerial and technological innovations.

The basic aim of this method is to categorize and separate the goals and objectives of the Greek family business. More specifically:

- To determinate the position and strength of family businesses in the country's financial situation;
- To observe the present situation and the problems that family firms face due to the financial crisis;
- To investigate new technologies, innovations and pioneer applications that would breeze the family enterprises and reinforced them towards the new economy's challenges.

The research sample will concentrate on two different approaches:

- Students from the department of Informatics (students who study ICT) that come from a family business environment. In-dept interviews will be carried out firstly with the student regarding his/her career interest in the family business and secondly with the other members of the family business. The aims are to discover different views and obtain insight into the conflict of the family business in

particular regarding opinions of innovative methods and ICT use by different age groups. The number of such family businesses is estimated to be around 50.

- Family businesses in the Thessaloniki prefecture will be identified through chambers, such as the technical, the commercial and the craft-based. Depending on later defined criteria for choosing the suitable family businesses a final questionnaire will be developed and sent to approximately 500 family businesses.

Finishing the data collection process, a statistical analysis is necessary, so to reach to more selective, analytical, direct and reliable results that will set the base to the formation of the expected model.

In order to statistically analyze the final questionnaires a statistical package, such as SPSS, will be used.

Conclusions

The literature review will lead to a presentation of a complete and analytical meaning of a family business. More specifically, investigating the role of ownership, defining the term of leadership and examining the conflicts that arise in a family environment, this project is aiming to focus on and subsequently to present a balance strategy that will bond family relations to enterprise goals and lead the business to be successful. Investigating the family controversies, the generation gap, the succession scenarios, the survey that will be carried out expects to underline the importance of business strategy in family enterprises. Highly prospective results are likely to present how and in what dimension the Greek family businesses are influenced by the financial crisis. Through analytical research, it is likely to find the position that family firms own in the Greek economy, how they affect it, and how they can empower the Greek economy towards the challenges of the global markets.

This surveys aims to reveal the importance of the use of ICTs (the existence/lack of them) and management innovative applications in family businesses today. The introduction of ICTs and innovative methods are expected to modernize the family business, helped the employers to improve the firm's processes and give new prospects to the firm to increase its efficiency and be more profitable. The expected results from the in-depth interviews of the students in the department of informatics and other family business members are likely to indicate:

- (i) The motives of the students in the department of informatics, who also are members of family businesses, for choosing ICT studies;
- (ii) The expectations of these students regarding potential career development in the family business;
- (iii) The expectation of the other family business members on these students as members of the family business when they graduate
- (iv) The potential social and financial profits as well as the sustainability that the application of innovations and new ICTs will give raise to the firms
- (v) The generational gap that students have to face entering a family firm
- (i) develop in order to acquire and combine new resources and existing ones

- (ii) The double importance and the challenge of a family firm to retain traditions and to adopt innovations in doing business
- (iii) The analysis of the problems that arise in family businesses due to the financial crisis and its importance to the Greek economy
- (iv) Balancing family conflicts and doing business

The ultimate outcome of this study to create a model incorporating guidelines for flexible adaptable and innovative managerial, technological and organizational structures facilitating development and success of family businesses.

Research Planning

The first step of the research planning contains the literature review and the theory collection as well as the provision of any hidden factors.

The establishment of a framework and the development of the questionnaire in order to collect all the necessary data for the project to quest the findings of literature within the Greek family companies are following.

Continually questionnaires are going to be sent and collected by the companies. Interviews are going to be performed to both students and their family members that work in the family firms.

Primary data will be collected. Analysis of the data, and matching them with literature.

Investigation of how companies could adopt ICT's and innovative managerial methods.

Creation of a model incorporating guidelines for flexible adaptable and innovative managerial, technological and organizational structures facilitating development and success of family.

Summarizing the whole project, make an evaluation methodology proposal if any, and writing up the thesis

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