The Difficulty in Following Project Schedule as a Key Project Management Challenge: Family Firm Perspective

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ABSTRACT
The problem of how to manage projects successfully has been gaining growing interest for the last decades. The aforementioned is mainly caused by the fact that project management offers a wide range of methods and tools which, when properly used, can stimulate long-term growth of businesses. As a consequence it offers a particular development opportunity for family enterprises which, due to their specificity, have to overcome many difficulties. The primary objective of this paper is to examine whether family enterprises perceive, and to what extent, the factor of following project schedule as a difficulty in the area of project management. 154 Polish family firms representing different sectors were surveyed. The results of regression analysis show that family firms with global range of business activities, on the contrary to those with local or regional ones, do not find the factor of following project schedule as a difficulty. This results mainly from the tools employed and the maturity level they have reached in project management. The findings support the current discussion on the specificity and uniqueness of family businesses in relationship to the knowledge area of project management. It also contributes to filling the gap on understanding the functioning of family firms in the emerging economies of Eastern Europe.

KEYWORDS: family business, project management difficulties, project schedule, Poland

JEL CLASSIFICATION: L21, M21, O22

1. INTRODUCTION
The research area of family enterprises, due to its significance, has been gaining growing interest of researchers for the last decades. The specificity of family businesses viewed as a unique combination of two subsystems: the family and the business (Naldi, Nordqvist, Sjoeberg, & Wiklund, 2007) opens a broad and very interesting field for both qualitative and quantitative studies. In literature there is a wide consensus concerning the significant role of family businesses in economies independent of their cultural setting. Scholars recognize the importance of firms owned and managed by families. In a number of studies family firms have been confirmed to have very strong economic and social significance (Sharma & Carney, 2012). Family businesses strongly influence entrepreneurship, which according to Tachiciu is seen as the cornerstone of the competitive economy (Tachiciu, 2015). As a consequence they have been found to have strong influence over the development processes not only at the level of economies but municipalities as well (Compare Ejsmont, 2016; Karhanova, Rydvalova, & Zbrankova, 2016).

However, in spite of many highly reliable and empirically confirmed investigations dedicated to different factors determining functioning of family firms, there still remain areas worth deeper scientific exploration and empirical verification. Project management is one of them.

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Through researchers have so far investigated how family firms build relationships with their external stakeholders (Neubaum, Dibrell, & Craig, 2012), the role of family as an additional stakeholder (Zellweger & Nason, 2008) still leaves an interesting study field. According to the knowledge of the author of this paper there are no studies investigating difficulties that family firms encounter within project management- with special attention paid to following project schedule in the context of the emerging economies in Central and East Europe.

This paper aims at identifying if, and to what extent, family businesses, and experience problems with following schedule in projects they manage. The above problem is studied in the context of East European countries as examples of emerging economies.

The study promises two main contributions. From academic perspective it supports the current discussion on the specificity and uniqueness of family businesses with special attention paid to the knowledge area of project management. It also contributes to filling the gap on understanding family firms functioning and project management specificity in the emerging economies of Eastern Europe.

The paper is organized as follows. Section 1 describes key factors determining the specificity and development possibilities in family enterprises. Section 2 presents main difficulties in the area of project management in the context of reaching project success. Section 3 provides empirical verifcation for the problem. The paper is finished with conclusions.

2. KEY DETERMINANTS FOR THE DEVELOPMENT OF FAMILY ENTERPRISES: LITERATURE REVIEW

Researchers emphasize a wide set of features characterizing family firms that can be used as an important source for gaining competitive advantage and building strong competitive position in a market. A major stream of studies have been dedicated to the role of family involvement and influence (Astrachan, Klein, & Smyrnios, 2002). Chua, Chrisman and Sharma (1999) emphasized that this is the family involvement that makes family firms highly unique. These results have been confirmed by other authors who found that family involvement is a signal to external stakeholders that the family puts high priority to preserving their socioemotional wealth (P. Berrone, Cruz, & Gomez-Mejia, 2012). In similar, exploratory studies in Western European companies have shown that family control is responsible for increasing those entities performance (Maury, 2006). Other authors have investigated the effects of family on family business performance (Dyer Jr., 2006) finding family involvement as the main determinant for the directions of their long-term growth.

In many cases family business entities can be characterized by the highest quality standards according to the quality management standards (Compare Olaru, Dinu, Stoleriu, Sandru, & Dinca, 2010). Many of them grow in a way representing the rules of environmentally sustainable development (Compare Brad S. et.al, 2016). Family firms have also been studied in the context of building strategic flexibility (Zahra, Hayton, Neubaum, Dibrell, & Craig, 2008), as well as in the context of economic and legal logic of a formal organization (Sułkowski, 2016, p. 31). The transformation processes in family firms are to a high extent related to succession (Więcek-Janka E., Mierzwia R., 2016, pp. 9-11). In the process of constant development these business entities have also to learn how to solve problems which arise due to their internal organizational changes (Compare Więcek-Janka, 2003). All above factors on one hand support their uniqueness, on the other however cause that family firms have to build and then rebuild models according to which their businesses are managed. Safin
and Huelsbeck (2016) notice that business models of family firms are subject to modifications which are influenced by two types of factors which are business-, and family ones.

It is worth noticing that the transformation that takes place in the sector of family firms is implicated not only by changes going on in the internal structures of these business entities but to a high extent, also to changes that take place in the environment. This phenomenon has been depicted in figure 1.

Study of factors which influence the possibilities of family business development draws attention to a number of significant aspects. The development processes of family enterprises are nowadays to a high extent determined by the growing role of factors of ‘external type’. The source of these determinants should be looked for first of all in the environment of family firms. The aforementioned factors comprise the growing impact of stakeholders (Popa & S. C. Simona, 2015). According to Clarkson, there is a strong relationship between firms’ ability to manage relations with stakeholders successfully and the fact whether the company ‘survives’ or not (Clarkson, 1995, pp. 92-115). This again draws attention to the growing role of business social responsibility, an important part of which is the area of stakeholder management.

Corporate Social Responsibility is connected mostly with potential actions and steps family firms should take in order to provide advantages to social groups. But the area of Corporate Social Responsibility starts to be more and more related to the area of natural environment and the responsibility particular enterprises should take in relation to this. As Mazur-
Wierzbicka (2016) states, organizations should get involved in actions designed for the sake of natural environment protection (Mazur Wierzbicka, 2016, s. 237).

Development opportunities are strictly connected with the innovative potential of a company as well as the ability to initiate, implement and manage different types of innovations. According to Pomykalski, management is this particular aspect of business functioning which decides whether this particular enterprise will succeed or not (Pomykalski, 2016, pp.163-177).

3. DIFFICULTIES IN FOLLOWING PROJECT SCHEDULE IN POLISH FAMILY FIRMS- EMPIRICAL STUDY RESULTS

Previous research related to family firms suggests a number of issues worth deeper scientific exploring. This paper broadens the understanding of family firms functioning in relationship to project management area.

3.1 Objectives of study

In view of the conclusions coming from the family business literature the primary objective of this paper is to examine whether family businesses identify, and to what extent, the factor of following project schedule as a difficulty in the area of project management. The paper formulates no hypotheses but the following research questions (RQ):

RQ 1. What is the difficulty in following project schedule as identified in the studied family companies?

RQ 2. is keeping up with project schedule influenced by factors related to companies characteristics such as: age, type of activity, range of business activities, employment level?

RQ 3. is there a relationship between the identified difficulty in keeping up with project schedule and family firm management specificity: family generation managing the company, number of family members engaged in business activities?

3.2 Methodology and research design

Due to a very limited number of studies dedicated to family firms in East-European countries (Kowalewski, Talavera, & Stetsyuk, 2009) this investigation covered Polish micro-, small-, and medium enterprises. All of the analyzed entities represent family businesses. For the purpose of the study family company has been defined, according to (Miller, Le Breton-Miller, Lester, & Cannella, 2007, pp. 829-845), as this in which multiple members of the same family act as owners and/or managers- either over time or contemporaneously. Additionally, in order to avoid response bias, each study participant was asked to confirm that they regarded themselves as a family business. The research was conducted on a sample of 154 family firms. The research should be attributed quantitative character. The research is not closed and it will be further developed with family businesses in other East-European emerging economies.

The research technique used in the study were questionnaires. The questionnaire which was used as primary data collection was developed based on the research questions set. It contained two types of questions: close-ended questions-based on 5-point Likert scale and dichotomous questions of yes/no type. All of the questions included were based on literature studies in two knowledge areas: project management and family firms. First, the pilot
questionnaire test was conducted. Based on the information received from representatives of family businesses chosen to take part in the pilot test, changes were incorporated. Then the questionnaires were distributed to the selected family businesses. Due to the fact that there is no national register of family firms in Poland, the convenience sampling was used.

3.3. Independent and dependent variables

Based on the research questions formulated, the following research model has been formulated.

![Research Model Diagram]

This study uses 1 dependent (explained) and 6 independent (predictor) variables. The explained variable has been formulated as the difficulty in following project schedule - as identified by the studied firm. Predictor variables were clustered in two groups. The first group relates to management specificity in the studied entities. It covers two predictors: the number of family members engaged in firm’s activities and family generation managing the company. The second group of predictors refers to family firm characteristics and comprises 4 variables:

- age of the company measured by the time of firm’s presence in a market (shorter than one year, 1-5 years, longer than 5 years till 10 years, longer than 10 years till 25 years, longer than 25 years),
- company’s size measured by the level of employment (less than 9 employees, 10-49 employees, 50-249 employees, more than 250 employees),
- type of business activities of the studied enterprise (manufacturing, trade, services),
- range of business operations (local, regional, domestic, global).
Due to the specificity of particular variables which were included in this research, the study uses the Spearman rank correlation and the ordinal logistic regression.

3.4. Sample description

In the study 154 questionnaires were obtained (N=154). Out of this number, following Kerzner (2001), only those businesses were included for further studies where the respondents confirmed that they were implementing their business operations through projects (n=69). However due to the systemic lack of data in case of 1 company, 66 family businesses were included in further analyses (n=66).

The sample of the studied family firms was dominated by very small (micro) businesses employing 1-9 workers. Firms from this group accounted for 58% of all studied companies. The second largest group of family businesses was the one with employment level between 10 and 49 workers- 37,7%. Additionally, taking into consideration the criterion of type of activity (manufacturing/trade/services), most companies represented the group of service entities. This phenomenon, deeply studied in literature (Pascual Berrone, Cruz, Gomez-Mejia, & Larraza-Kintana, 2010) can be, among others, attributed to the development of innovation-, and knowledge based economy (Śledzik, 2014, pp. 67-77). Researched businesses are not very young companies. 37,7% of them have been performing their business operations in the market more than 10 years till 25 years. Only 4 companies, accounting for 5,8%, have been founded during the last year. The above phenomenon might indicate a kind of business maturity represented by family companies which, in this case, would result from the time of their business presence in the market. Due to the small size of family enterprises, the majority of them (63,8%) engages less than 3 family members. In similar, 65,2% of the surveyed entities is run by the first family generation. However taking into consideration the fact that 37,7% of them are older than 10 years, this might indicate that family owners are not very keen on passing their key managing competences onto other family members or externally employed managers.

4. RESULTS OF THE STUDY- DISCUSSION AND CONCLUSIONS

The first part of the study shows the difficulty of the factor of following project schedule- as identified by the surveyed family firms (table 1).

Table 1. Following project schedule in terms of difficulty in project management area- identification by the studied family businesses

<table>
<thead>
<tr>
<th>Degree of difficulty</th>
<th>Frequency</th>
<th>Percentage, %</th>
<th>Cumulated Percentage, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very small</td>
<td>6</td>
<td>8,7</td>
<td>8,7</td>
</tr>
<tr>
<td>Small</td>
<td>6</td>
<td>9,1</td>
<td>18,2</td>
</tr>
<tr>
<td>Medium</td>
<td>21</td>
<td>30,4</td>
<td>50,0</td>
</tr>
<tr>
<td>Significant</td>
<td>23</td>
<td>33,3</td>
<td>84,8</td>
</tr>
<tr>
<td>Very significant</td>
<td>10</td>
<td>14,5</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: own study.

The factor of keeping up with project schedule in terms of difficulties it creates for managing projects in the studied business companies is seen by the majority of enterprises as medium or significant. It is worth noticing that 10 family firms identified this factor as very significant. On the contrary, 6 firms found the difficulty of this factor as ‘very small’ for their project operations. Table 2 shows shows Spearman rank correlation for the studied sample.
Table 2. Spearman rank correlation analysis - predictors related to family business characteristics (n=66)

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The key difficulty in project management is following project schedule</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Age of the firm</td>
<td>-0.028</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Production comp.</td>
<td>-0.198</td>
<td>0.172</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Trade comp.</td>
<td>0.039</td>
<td>-0.004</td>
<td>0.082</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Service comp.</td>
<td>0.136</td>
<td>-0.021</td>
<td>-0.412**</td>
<td>-0.329**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Number of employees</td>
<td>-0.137</td>
<td>0.312**</td>
<td>0.163</td>
<td>0.132</td>
<td>-0.094</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Range of business activities</td>
<td>-0.343**</td>
<td>0.122</td>
<td>0.091</td>
<td>-0.004</td>
<td>-0.006</td>
<td>0.211</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Spearman’s correlation coefficient is statistically significant at p < 0.01 (2-tailed)

Source: own study.

There is a significant correlation between the range of business activities (local/regional/domestic/global) and the perceived level of difficulty in following project schedule (rho= -0.343). This finding suggests that those family businesses which managed to increase their range of business operations to the global level identify the factor of keeping up with project schedule not as a significant difficulty. This might indicate that the family businesses which are operating globally have gained an increased level of project management excellence (Soava G. & Raduteanu M., 2013) which is supported by high project management maturity and the properly selected tools in the project management area. Analyzing the structure of companies which perform their business operations on a global scale it should also be noticed that these entities were in most cases small and medium enterprises (8 out of 10) employing no more than 49 workers. This indicates for the first that the size of family firms (measured by employment level) is under no circumstances a constraint, and for the second that the aforementioned, globally operating entities, have managed to find and effectively use other sources to build their excellence in management (Verbboncu, 2011). This finding might also confirm the one by Dyer and Whetten (Dyer & Whetten, 2006) who argue that certain family firm key-characteristics give these entities not only a unique set of organizational identities but also an unrepeatable set of project management identities.

Table 3 shows Spearman rank correlation for the studied sample- with predictors relating to management specificity.

Table 3. Spearman rank correlation analysis - predictors related to management specificity (n=66)

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The key difficulty in project management is following project schedule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The company is managed by generation</td>
<td>0.141</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Number of family members engaged in business activities</td>
<td>0.14</td>
<td>-0.493**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Spearman’s correlation coefficient is statistically significant at p < 0.01 (2-tailed)

Source: own study.
There is a strong positive correlation between the predicting variable of the family generation managing the company and the number of family members engaged in business activities (\( \rho = 0.493 \)). This allows us to think that the younger the generation leading the company the higher the number of family members engaged in business activities. The above might indicate that members of the family from younger generations appreciate presence of older members of the family being engaged in business activities. It can also be a consequence of the fact that founders of family business in spite of a successful succession, still want to remain active and participate in the life of the enterprise.

In order to verify the assumption that variables related to family firm characteristics and management specificity predict an estimation of the difficulty in following project schedule, the ordinal logistic regression has been employed (table 4).

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Estimator (B)</th>
<th>Standard Error</th>
<th>Level of Significance</th>
<th>Lower bound</th>
<th>Upper bound</th>
<th>exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of employment</td>
<td>-0.734</td>
<td>0.486</td>
<td>0.131</td>
<td>-1.687</td>
<td>0.218</td>
<td>0.479985204</td>
</tr>
<tr>
<td>Range of business activities</td>
<td>-0.471</td>
<td>0.238</td>
<td><strong>0.048</strong></td>
<td>-0.937</td>
<td>-0.004</td>
<td>0.624377578</td>
</tr>
<tr>
<td>Number of family members engaged in business activities</td>
<td>0.111</td>
<td>0.376</td>
<td>0.767</td>
<td>-0.626</td>
<td>0.848</td>
<td>1.117394907</td>
</tr>
<tr>
<td>Family generation running the company</td>
<td>0.945</td>
<td>0.465</td>
<td><strong>0.042</strong></td>
<td>0.034</td>
<td>1.855</td>
<td>2.572813379</td>
</tr>
<tr>
<td>Production</td>
<td>0.85</td>
<td>0.577</td>
<td>0.14</td>
<td>-0.28</td>
<td>1.98</td>
<td>2.339646852</td>
</tr>
<tr>
<td>Trade</td>
<td>0.233</td>
<td>0.503</td>
<td>0.643</td>
<td>-1.22</td>
<td>0.753</td>
<td>1.262381479</td>
</tr>
<tr>
<td>Services</td>
<td>0.576</td>
<td>0.564</td>
<td>0.307</td>
<td>-1.681</td>
<td>0.529</td>
<td>1.778908546</td>
</tr>
</tbody>
</table>

Source: own study.

Range of business activities and family generation managing the company are particularly significant in explaining the difficulty in following project schedule- as perceived by the studied family businesses. The increase in the range of business activities facilitates following project schedule, so does the level of employment. The results of the ordinal logistic regression also allow us to draw a conclusion that increasing range of business activities from local to regional, domestic and finally global, results in lowering the difficulty related to keeping up with project schedule in terms of challenges it creates for managing projects. The aforementioned situation might be caused among others by the fact that family companies performing their business operations in a global scale, plan and implement more activities dedicated to keeping fruitful relationships with their business environment, where, at the same time, keeping with the project schedule is seen as a skill and competence that has already been very well developed. The finding that following project schedule is not a difficulty for globally operating companies is consistent with results of other studies dedicated to family businesses where a number of researchers have confirmed that there is a significant and positive relationship between size of the firm and its performance, where bigger firms perform better (Brenes, Madrigal, & Requena, 2011; De Massis, Kotlar, Campopiano, & Cassia, 2013).
The younger the generation leading the company, the higher the difficulty in following project schedule. The aforementioned might either indicate that those family companies which are managed by the second or third generation either need to employ more advanced project management techniques and tools or young managers do realize that apart from building good relationships with project stakeholders, project schedule still remains the strategic factor determining the final project management result.

It is also interesting to see that the number of family members who are active in the company do not decrease the difficulty related to keeping up with the schedule while managing projects. Although this finding might seem controversial it does not stand in contrast to other studies where the important contribution of families to these business entities was emphasized (Olson et al., 2003).

5. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study is not free from limitations. A first limitation is the geographical setting of the research. Furthermore, a broader research is needed where family businesses from other East-European economies are included in the study. It would also be much beneficial to study difficulties in following project schedule that family companies encounter in relationship to the project final result and in combination with other factors of internal (e.g. following project budget) and external character e.g. (responding to signals from the environment). Nevertheless, this study represents the first step in this scientific direction and will be continued on a larger scale.

6. SUMMARY

Family firms are now facing an increased number of challenges. In case of Polish enterprises representing East-European economy a separate group of development constraints has originated from the previous socialist system (Dinu, 2016). The above challenges are related to many areas of their functioning, including implementing project management as one of them. In opinion of the author of this paper, studying difficulties family business entities encounter in the area of project management is of much significance especially in the context of building project success.

This research has been conducted to study the difficulties in following project schedule that are identified by family companies. Using the context of Poland as a developing country allows us to think that family businesses as representatives mainly of small and medium enterprises in other East-European economies might encounter similar problems.

Results of the study indicate that the majority of the studied family firms identify keeping up with project schedule as a significant difficulty in the project management area. Only 9.1% of surveyed participants found it a small difficulty or a very small difficulty (9.1%). Following project schedule in terms of difficulty it creates in the area of project management correlates with the range of family business operations. Globally operating family enterprises, on the contrary to those operating locally and regionally, attributed to the factor of following project schedule a low level of difficulty.

The critical project success factors include: effective governance, goals and objectives, all parties commitment to the success, responsible sponsoring and funding, project planning and
review, supportive organizations together with end users, high competence of project teams, using proven methods, tools and quality standards (APM, 2016). The conclusion based on the results of this study is that all of the above remain in direct and mutual relationship with the factor of ‘running’ the project with its schedule and budget assumptions. What is more, without keeping up with project schedule and budget, their influence over project success remains vestigial. None of the aforementioned factors, can ‘exist’ independently of the other. As a result, the real core of project success is business ability to combine the influence of all of them. It is the effective linking of all these factors that actually can increase the probability of project success.

REFERENCES


