Entrepreneurial orientation in family and non-family firms: evidence from Bulgaria

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Abstract

Despite the importance and potential role of entrepreneurship for economies in Central and Eastern Europe, little attention has been devoted to identifying which factors contribute to the entrepreneurship in the region. The purpose of the present study is twofold. First, there is a comparison of entrepreneurial orientation in Bulgarian family and non-family firms. Second, there is an examination of which individual, organizational and environmental factors underlie differences in entrepreneurial orientation between family and non-family firms. The findings reveal that several organizational and environmental factors are conductive for pursuing entrepreneurship within family and non-family firms. Lower environmental dynamism, smaller firm size and the lack of foreign ownership account partially for lower entrepreneurial orientation in family firms. The paper provides a discussion of implications for practitioners and suggestions for future research.

Keywords: entrepreneurial orientation, determinants, family firms, non-family firms, Bulgaria

JEL Classification: M1

1. Introduction

Since the beginning of the 1980s the phenomenon of entrepreneurship within existing organizations (corporate entrepreneurship) has attracted the interest of both scholars and practitioners (Antoncic and Hisrich, 2001, p. 496). It involves either the creation of new businesses through internal innovation or venturing or strategic renewal (Güth and Ginsberg, 1990, p. 5). Previously, the focus of entrepreneurship research was restricted mainly to the individual entrepreneurs, the context and the process of creation

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of new enterprises (Low and MacMillan, 1988, p. 146). The increasing attention on entrepreneurship within existing organizations is determined by the challenges faced by entrepreneurs and managers operating in an increasingly uncertain, complex and dynamic environment. Research findings demonstrate that corporate entrepreneurship can enhance firm performance (Zahra et al., 1999; Ripolles and Blesa, 2005; Wiklund, 1999; Wiklund and Shepherd, 2005). Recent empirical evidence also confirms the positive impact of entrepreneurship on firm performance in a transition economy (Manev et al., 2005).

Despite the importance and the potential role of entrepreneurship for transition economies (McMillan and Woodruff, 2002, p. 153, Smallbone et al., 2001, pp. 253-254), relatively little research attention has been devoted to entrepreneurship in this context (Manev and Manolova, 2008). Reviewing the research on entrepreneurship in transition economies, Manev and Manolova (2008) identified only 11 journal articles employing data analytical methods at firm level. Thus, existing empirical findings about entrepreneurship within existing organizations are applicable to developed economies, which are characterized with developed institutional environment, abundant resources, and presence of entrepreneurial role models. They cannot be easily extended to transition economies in Central and Eastern Europe, which have experienced profound economic, political, and institutional changes. Emerging studies on entrepreneurial firms operating in transition economies are mainly descriptive and exploratory in nature (Luo et al., 2005, p. 277).

Family businesses have increasing role in the growth-oriented economies in Central and Eastern Europe (CEE) (Pistrui et al., 1995, cited in Donckels and Lambrecht 1999, p. 171). In one of the first studies on family business in the Balkans, Poutziouris et al. (1997, p. 244) note that family business activity in Bulgaria is in the foundation phase. More than 10 years after the Poutziouris et al.'s (1997) research, the role of family businesses in Bulgarian economy may have increased significantly. Although entrepreneurship in transition economies in Central and Eastern Europe has attracted significant research attention, the role of family business is largely neglected (Pistrui et al., 1997, p. 221). It is acknowledged that family firms need to be innovative and aggressively pursue entrepreneurial opportunities (Zahra et al., 2004). This may be particularly valid for transition economies such as Bulgaria, which is characterized by a high degree of turbulence and uncertainty due to profound changes during the last 15 years and the integration into the European Union. However, family businesses may be more conservative and risk averse than non-family businesses and therefore unwilling to undertake entrepreneurial activities (Zahra, 2005), which may eventually influence negatively their survival and growth.

The purpose of the present study is to compare entrepreneurial orientation (EO) in Bulgarian family and non-family firms and to identify the reasons for possible differences in EO. It will be examined which individual, organizational and environmental factors account for differences in EO between family and non-family firms. In this study family firms are firms where one family controls the company and is represented in its

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management team (Naldi et al., 2007). Practical implications for owners and managers of family businesses will be discussed.

This paper is organized as follows. Section 2 presents the literature review on antecedents of entrepreneurial orientation and the hypotheses to be tested in this study. Section 3 describes research methodology of the study. Section 4 contains the empirical analysis and results. The last section presents discussion of the research findings and conclusions.

2. Background of the study and hypotheses

2.1 EO in family and non-family firms

Enterprises that want to be entrepreneurial need to develop EO (Dess and Lumpkin, 2005, p. 147). While entrepreneurship is the act of new entry, EO reveals how it could be accomplished (Lumpkin and Dess, 1996, p. 136). EO refers to "the processes, practices, and decision-making activities that lead to new entry" (Lumpkin and Dess, 1996, p. 136). Miller (1983, p. 771) argues that "an entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch". Drawing upon Miller's (1983) seminal article, several researchers have agreed that EO is a combination of the dimensions risk-taking, innovativeness, and proactiveness and reveals the extent to which firms take risks, innovate, and behave pro-actively (Wiklund and Shepherd, 2005, p. 75; Lumpkin and Dess, 1996, p. 139). Risk-taking refers to "incurring heavy debt or making large resource commitments, in the interest of obtaining high returns by seizing opportunities in the marketplace" (Lumpkin and Dess, 1996, p. 144). Successful corporate entrepreneurship requires that firms choose riskier alternatives, which may involve even forgoing existing products and methods (Dess and Lumpkin, 2005, p. 152). Innovativeness reflects a tendency "to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes" (Lumpkin and Dess, 1996, p. 142). Innovativeness requires that firms abandon existing practices and approaches and adopt novel solutions (Dess and Lumpkin, 2005, p. 150). Proactiveness is associated with "processes aimed at anticipating and acting on future needs" in order to capitalize on emerging opportunities and establish a first-mover advantage in the marketplace (Lumpkin and Dess, 1996, p. 146). Such processes may include monitoring trends, identifying the future needs of customers, anticipating changes in demand, recognizing emerging problems as well as acting upon anticipated changes before competitors (Lumpkin and Dess, 1996, p. 150).

The identification of factors that predict EO was one of the principle research objectives within the realm of research on EO (Covin et al., 2006, p. 58). Several models of entrepreneurship proposed in the literature posit that the following three groups of factors influence entrepreneurship within existing organizations: individual characteristics, organizational characteristics, and environmental factors (Güth and

Ginsberg, 1990, p. 7; Covin and Slevin, 1991, p. 9; Zahra, 1991, p. 262). Zahra (1991, p. 260) stresses that the corporate entrepreneurship's major precursors can be reliably understood only by examining the simultaneous effects of these variables.

Naldi et al. (2007) demonstrate that family firms take risks to lesser extent than non-family firms. The literature on family firms and innovation reveals that family firms are less innovative than non-family firms because "they prefer to avoid the risk of failure associated with the new and untried" (Gomez-Mejia et al., 2007, p. 133). Therefore, we suggest that:

H1: Family firms exhibit lower EO than non-family firms.

2.2 Individual characteristics as mediators of the effect of the family business status on EO

Drawing upon upper echelons theory (Hambrick and Mason, 1984) it can be argued that the presence of stock ownership, the education level, and the organizational tenure of the chief executive officer may partially mediate the effect of the family business status on EO. As Baron and Kenny (1986) note, partial mediation is more frequent model than complete mediation. The upper echelons theory is based on the assumption of bounded rationality (Hambrick, 2007, p. 334). Since top executives do not dispose with perfect information to take rational decisions, their biases and dispositions are crucial for understanding the functioning and performance of organizations (Hambrick, 2007, p. 334). Organizational outcomes can be partially predicted from demographic characteristics of executives (Hambrick and Mason, 1984, p. 197). The theory is focused on both CEOs and other individual leaders and top management teams (Hambrick, 2007, p. 334). Strategic choices of executives are a function of their perceptions of the situation combined with their values (Hambrick and Mason, 1984, p. 195). Observable characteristics of executives can be used as valid indicators of their cognitive base, values and behaviours (Hambrick and Mason, 1984, p. 196; Hambrick, 2007). Such observable characteristics include age, tenure in the organization, education, functional background, socioeconomic background, and stock ownership of top executives (Hambrick and Mason, 1984, pp. 196-201). Differences in observable characteristics of the chief executive officer in family and non-family firms may account for differences in EO.

Human capital characteristics of individual employees contribute significantly to companies' ability to innovate and create new businesses (Hayton and Kelley, 2006, p. 408). Empirical evidence suggests that top management team's level of education is positively associated with innovation (Bantel and Jackson, 1989) and strategic change (Wiersema and Bantel, 1992). Education affects positively perceptions of entrepreneurship within organizations (Rutherford and Holt, 2007). The link between the level of education of employees and EO was also supported in a transition context (Chow, 2006). The chief executive officer (CEO) in family firms may be less likely to have high level of education than the CEO in non-family firms because managers in non-family

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firms are more likely to be promoted based on kinship rather than on specific knowledge and competences (Westhead, 1997). Empirical research confirms that CEOs in family firms tend to have lower level of education than CEOs in non-family firms (Reid and Adams, 2001). Therefore, it can be argued that:

H2: The CEO's level of education mediates partially the effect of the family business status on EO.

Organizational tenure of top management team was found to be negatively associated with strategic change (Wiersema and Bantel, 1992, p. 112). It was argued that individual members of top management teams tend to take the cognitive perspectives of other members of the team after a period of time (Wiersema and Bantel, 1992, p. 113). The chief executive officer's tenure may influence the firm's responsiveness to its environment (Miller, 1991, p. 35). Williams and Lee (2009, p. 1380) argue that organizations with top management teams with longer tenure are more likely to exhibit conservative EO. Empirical evidence demonstrates that the chief executive officer's tenure is inversely related to the match between the organizational strategy and environment especially in uncertain settings (Miller, 1991). CEO's tenure is significantly higher in family-firms than in non-family firms (McConaughy, 2000; Tsai et al., 2006). Particularly, in founder-managed family business founder-CEOs may enjoy long tenures (Zahra, 2005). Therefore, it is posited that:

H3: The chief executive officer's tenure mediates partially the effect of the family business status on EO.

2.3 Organizational characteristics as mediators of the effect of the family business status on EO

Drawing upon the Resource Based View of the firm (RBV) (Wernerfelt, 1984; Barney, 1991), it can be assumed that learning orientation, growth strategy, and the presence of foreign owners mediate the effect of the family business status on EO. The RBV emphasizes the strategic role of organization's resources and capabilities for organizations and their strategy. Central to the resource-based view of the firm are the assumptions of heterogeneity and immobility of resources (Barney, 1991). Resources may differ across firms in an industry or a group and some firms may be unable to purchase or create strategic resources held by a competing firm (Barney, 1991). The theory advocates that rare, valuable, inimitable, and non-substitutable resources may be sources of sustained competitive advantage (Barney, 1991). Company's ability to engage in entrepreneurial behaviour is highly dependent on company's resources and competences (Covin and Slevin, 1991, p. 15). The availability of resources may encourage experimentation and risk-taking (Hornsby et al., 2002).
Learning orientation is a critical resource which top managers may use in order to establish EO in the organization. Learning orientation is conceptualized as "the value that a firm places not only on adroitly responding to changes in the environment but on constantly challenging the assumptions that frame the organization's relationship with the

environment" (Baker and Sinkula, 1999, p. 412). Thus, learning may enable management to redirect individual employees and to generate cumulative knowledge and information that will encourage future entrepreneurial activities (Ahuja and Lambert, 2001, p. 540). Slater and Narver (1995, p. 66) argue that learning orientation should lead to greater new product success and superior growth. Empirical evidence confirms that learning orientation is associated with firm innovativeness (Calantone et al., 2002) and EO (Wang, 2008). Liu et al. (2002) find a significant relationship between learning orientation and corporate entrepreneurship in a transition context. Family businesses may exhibit lower learning orientation than non-family firms. Empirical research demonstrates that family firms are less likely to systematically analyze training needs and to provide training to employees (Reid and Adams, 2001). Therefore, it is suggested that:

H4: Learning orientation mediates partially the effect of the family business status on EO.

EO may be necessary for achieving growth in organizations. Growth strategy tends to stimulate corporate entrepreneurship (Zahra, 1991, p. 264). Therefore, entrepreneurial posture may be highest among firms with growth strategies (Covin and Slevin, 1991, p. 13). The realization of an internal-growth strategy requires extensive innovation and venturing in all functional areas within the organization, while the realization of external-growth strategy requires expansion of the scope of business and markets (Zahra, 1991, p. 264). Empirical evidence confirms the positive effect of growth strategy on the number and early introduction of new products (Zahra, 1993a) and corporate entrepreneurship (Zahra, 1991). Family firms are less likely to be growth oriented (Daily and Dollinger, 1993). Therefore, it is suggested that:

H5: Growth plans mediate partially the effect of family business status of EO.

Companies in transition economies may lack managerial and entrepreneurial skills. Foreign investors in Central and Eastern Europe may transfer products and marketing skills, technology and management skills and know how to local companies, which may improve their product lines and market penetration (Uhlenbruck and De Castro, 2000, p. 383) and thus make them more entrepreneurial. Foreign ownership in companies operating in Central and Eastern Europe may be associated with high learning, high efficiency governance, and high corporate restructuring effectiveness (Filatotchev et al., 2003, p. 334). Liu et al. (2002) report that state-foreign partnerships exhibit higher level of corporate entrepreneurship than solely state-owned companies. Family businesses tend to keep the ownership within the family and therefore may be less likely to have foreign owners among owners than non-family firms. Drawing upon these considerations, the following hypothesis is formulated:

H6: The presence of foreign owners mediates partially the effect of the family business status on EO.

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2.4 Environmental dynamism as a mediator of the effect of the family business status on EO

In this sub-section it is suggested that environmental dynamism may mediate the effect of the family business status on EO. The Population Ecology Theory posits that environmental characteristics largely determine the survival of organizations through selecting the fittest organizational forms (Hannan and Freeman, 1977; 1984). Organizations face both internal and external constraints on their capacity for adaptation (Hannan and Freeman, 1977; 1984). The presence of considerable structural inertia in organizations makes adaptation less likely than environmental selection (Hannan and Freeman, 1977; 1984). Structural inertia derives from various internal and external factors. Selection favours organizational forms with high inertia because they exhibit high reliability, accountability, and reproducibility (Hannan and Freeman, 1984).

Environmental dynamism may favour organizations with high EO. Environmental dynamism refers to "unpredictability of customers and competitors, rates of change of change in market trends, industry innovation and R&D" (Miller, 1987, p. 62). Companies operating in transition economies in Central and Eastern Europe are confronted with significant environmental dynamism due to profound economic and institutional changes. Miller and Friesen (1982, p. 6) argue that dynamic environments are hospitable and advantageous to entrepreneurial firms because in such settings they may take risks and gain high rewards. Environmental dynamism is positively related to EO and corporate entrepreneurship (Covin and Slevin, 1991, p. 12; Zahra, 1991, p. 262). Güth and Ginsberg (1990, p. 7) suggest that changes in industry competitive structure and the underlying technologies tend to influence corporate entrepreneurship. Empirical evidence confirms the positive relationship between environmental dynamism and EO (Zahra, 1991; Zahra, 1993b; Miller, 1983). Family firms may be concentrated in more traditional sectors where the changes in the environment are less likely and thus may be confronted with lower environmental dynamism. Therefore, it is suggested that:

H7: Environmental dynamism mediates partially the effect of the family business status on EO.

3. Research methodology

3.1 Sample

This study uses a sample of 120 companies (46 family businesses and 74 non-family businesses) operating in Bulgaria. Data was acquired through a survey conducted at the end of 2008 among 350 enterprises randomly selected from a database of more than 73.000 Bulgarian enterprises extracted from the voluntary unified trade register of the Bulgarian chamber of commerce and industry and other sources. The response rate is approximately 34.3%. Some of the companies which refused to participate in the study have been contacted by e-mail or phone. They have reported that the main reasons were

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lack of time or reluctance to reveal business information. Respondents are the chief executive officers (CEOs) of the companies. The survey uses a structured questionnaire containing questions about the characteristics of the organization, the characteristics of the chief executive officer, and the environment. More than 60% of the sample companies operate predominantly in the service sector, while about 20% of the sample companies are manufacturing businesses. Small and medium-sized enterprises (SMEs) represent 77.5% of the sample firms (26.7% – micro-enterprises; 31.7% - small enterprises; 19.2% - medium-sized enterprises). The rest of the sample firms have more than 249 employees. Half of the sample firms are registered after 1997 and only 7.5% operate for more than 20 years. The great majority of the sample firms (93.3%) are private enterprises, while the rest of the sample firms are either state-owned enterprises or enterprises with mixed ownership. About 34% of the sample companies report having foreign legal entities or individuals among owners. More than 57% of CEOs have ownership in the company they manage. Less than 26% of the CEOs are women.

3.2   Variables

Table 1 in the Appendix describes the variables used in the study. The dependent variable in this study is EO. It is measured with 9-item, 7-point Likert scale proposed by Covin and Slevin (1989), which contains items adapted from Khandwalla (1976/1977) and Miller and Friesen (1982). The items are of the forced choice type, with pairs of opposite statements. The scale reveals the extent to which the firms innovate, take risk and behave proactively. Wiklund (1998) identified several studies using this instrument, which provide evidence of its validity and reliability. In this study the EO scale reports acceptable reliability (Cronbach alpha's value is 0.857).

Two individual characteristics of CEOs are hypothesized to mediate the relationship between family business status and EO in this study. CEO_education indicates the level of education acquired by the CEO of the company (1 = university degree, 0 = other). CEO_tenure is measured with the length of CEO's tenure in the organization in number of years.

The organizational characteristics that are expected to mediate the relationship between family business status and EO include learning orientation, growth strategy, and the presence of foreign owners. The variable FAMILY indicates whether the company is a family business (value 1) or not (value 0). The variable LO reveals the level of learning orientation of the company. It is measured through a 11-item, 7-point Likert scale developed by Sinkula et al. (1997). The scale is retested by Baker and Sinkula (1999) who provide further evidence for its validity and reliability. The Cronbach's alpha of the learning orientation scale is 0.836. The variable GROWTH indicates whether the company aims to expand its business activities or to increase the number of employees (value 1) or not (value 0). The variable FOREIGN indicates the presence of foreign owners (value 1) or otherwise (value 0).

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Environmental dynamism (DYNAMISM) is measured with the 4-item, 7-point Likert scale proposed by Miller (1987). The items are of the forced choice type, with pairs of opposite statements. The value of the Cronbach's alpha of the scale is 0.635.

Businesses with different age and size may exhibit different characteristics, which in turn may influence EO. Therefore, these variables are included in the analysis as control variables. In this paper we adopt the European Commission's employment criterion for an SME. The variable SIZE is a binary variable (1 = more than 249 employees (large company), 0 = less than 250 employees (micro, small or medium-sized enterprise). The variable FIRM_AGE indicates the age of the company in a number of years.

3.3   Data analysis

The most widely used method to assess mediation is Baron and Kenny's (1986) approach (MacKinnon et al., 2007), which involves 4 steps. The first step is to show that there is a significant relationship between the independent variable (IV) and the dependant variable (DV). The second step is to show that the independent variable (IV) is related to the mediator (M). The third step is to show that the mediator (M) is related to the dependant variable (DV) controlling for the effects of the independent variable (IV) on the dependent variable (DV). The final step is to show that the strength of the relation between the independent variable (IV) and the dependent variable (DV) is significantly reduced when the mediator is added to the model. Perfect mediation occurs if the independent variable has no effect on the dependent variable when the mediator is controlled. Partial mediation occurs when the effect of the independent variable on the dependent variable is less in the third step than in the first step but is different from zero. Since Baron and Kenny's (1986) approach may suffer from low statistical power (MacKinnon et al., 2002), a formal test of mediation should be performed. The mediation effect can be assessed with the procedure developed by Sobel (1982). MacKinnon et al. (2002) find that Sobel test is superior in terms of power in their study comparing 14 methods for assessing mediation. Standardized regression coefficients can be used to estimate mediation if the mediator and/or the dependent variable are binary (MacKinnon et al., 2007). MacKinnon et al. (2002) suggest another approach for testing mediation, which does not require the independent variable to be a significant predictor of the dependent variable. To have a more complete picture, this study tests mediation using both Baron and Kenny's (1986) approach and MacKinnon et al.'s (2002) approach.

Ordinary least squares regression analysis is used to examine the determinants of EO in family and non-family businesses in the sample. Table 2 in the Appendix provides the means, standard deviations, and correlations for the study variables. Correlations between variables are measured with Pearson correlation and Spearman's rho.

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4. Empirical results

4.1 EO in family and non-family firms

Table 2 in the Appendix shows that there are statistically significant correlations among several independent variables employed in the study. Companies with growth strategies have higher learning orientation and tend to operate in highly dynamic environments. Table 2 in the Appendix demonstrates that CEO' tenure and level of education are not correlated with EO. The variable EO is significantly related to several organizational and environmental factors. In terms of organizational characteristics, EO has significant positive correlation with firm size, learning orientation, growth strategies, and the presence of foreign owners. Environmental dynamism is also positively correlated with EO. CEOs in non-family businesses are more likely to have obtained a university degree. CEOs in family firms have longer tenure than CEOs in non-family firms. There are no significant differences in learning orientation and growth plans in family and non-family firms. Family firms tend to be younger, smaller, and less likely to have foreigners among owners. Non-family firms operate in more dynamic environments than family firms.

Table 3 in the Appendix presents the empirical results of hypotheses tests in the given sample. Four separate regression models are estimated and presented in Table 3 in the Appendix. In Model 1, EO is regressed on FAMILY. In Model 2 EO is regressed on all independent variables. In Model 3 it is examined which independent variables have statistically significant effect on EO in the sub-sample of family firms. In Model 4 it is examined which independent variables have statistically significant effect on EO in the sub-sample of non-family firms. As a check on multicollinearity, the tolerance factor and the variance of inflation factor (VIF) are used. The VIF for the regressions indicate that there are no serious multicollinearity problems, as they are all well within the acceptable limits (less than 4). All models show relatively good fit to the data as demonstrated by the values of adjusted R^2. Model 1 explains 4.4% of the variance in EO. The other models explain respectively 31%, 17%, and 32% of the variance in EO. The significant but modest R^2 values indicate that other variables not included in the study also influence EO. Residual plots were reviewed and no heteroscedasticity was found in the data.

According to Model 1 the coefficient of the variable FAMILY is significant and negative ($p < 0.05$). Family firms exhibit lower EO than non-family firms in the sample. Hypothesis H1 can not be rejected. In Model 2 the effect of family business status on EO controlling for other independent variables used in the study is examined. The coefficient of FAMILY is negative and significant at $p < 0.1$. After controlling for differences in CEO's education and tenure, the level of environmental dynamism, the level of learning orientation, the presence of foreign owners and growth plans, firm age and firm size, family businesses still exhibit lower EO than non-family businesses ($p < 0.1$). EO is also positively related to LO and GROWTH ($p < 0.01$) and DYNAMISM ($p < 0.1$). The

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coefficients in Model 2 reveal that the variable GROWTH has the strongest effect on the dependent variable in the whole sample. The coefficients of the variables CEO_education, CEO_tenure, FOREIGN, FIRM_AGE, and SIZE are not significant. Model 3 demonstrates that only 2 independent variables have significant effect on EO in family firms. As expected, GROWTH has a significant positive effect ($p < 0.05$) on EO in family firms. Family firms with growth strategy tend to exhibit higher EO. SIZE is also positively related to EO. Large family businesses have higher EO than other family businesses. As in Model 2, the variable GROWTH has the strongest effect on the dependent variable in the sub-sample of family firms. The coefficients of the variables CEO_education, CEO_tenure, LO, FOREIGN, DYNAMISM, and FIRM_AGE are not statistically significant. Model 4 reveals that only the coefficient of the variable LO is significant in the sub-sample of non-family businesses. As expected, non-family businesses with high LO exhibit higher EO. The coefficients of the variables CEO_education, CEO_tenure, GROWTH, FOREIGN, DYNAMISM, SIZE, and FIRM_AGE are not statistically significant.

The variable FAMILY seems to moderate the effect of SIZE, GROWTH, and LO on EO. The coefficient of the variables SIZE and GROWTH are significant only in the sub-sample of family firms, while the coefficient of the variable LO is significant only in the sub-sample of non-family businesses.

4.2 Mediation effects of individual, organizational, and environmental characteristics on EO

The variables CEO_education, CEO_tenure, and FIRM_AGE have no statistically significant effect on EO, while the variable FAMILY has no statistically significant effect on LO and GROWTH. Therefore, the variables CEO_education, CEO_tenure, FIRM_AGE, LO, and GROWTH cannot mediate the effect of the family business status on EO because some of the conditions for establishing mediation suggested by Baron and Kenny (1986) are not completed. Hypotheses H2, H3, H4, and H5 can be rejected. It will be examined whether DYNAMISM, FOREIGN, and SIZE can mediate the effect of the family business status on EO.

Table 4 in the Appendix presents the results of several regressions models involved in Baron and Kenny's (1986) procedure for testing mediation. In Step 1 in Table 4, EO is regressed on FAMILY. In Step 2 in Table 4, the mediator (M) (DYNAMISM, FOREIGN, and SIZE) is regressed on FAMILY (IV). In Step 3 in Table 4, EO is regressed on both FAMILY (IV) and the mediator (M). The last column in Table 4 reports the results of Sobel test. The VIF values for the two regressors in all regressions in Step 3 (Table 4) indicate that there are no serious multicollinearity problems, as they are all well within the acceptable limits (less than 2).

According to Step 1 in Table 4, FAMILY influences positively and significantly EO. The conditions for establishing mediation suggested by Baron and Kenny (1986)

hold for DYNAMISM (z = -1.9, p < 0.1), FOREIGN (z = -1.68, p < 0.1), and SIZE (z = -1.8, p < 0.1). Hypotheses H6 and H7 can not be rejected.

5.   Discussion and conclusions

The shift from centrally planned economy to market economy in the countries in Central and Eastern Europe has led to the emergence of a large number of privately owned enterprises including family businesses, which play important role for countries' economic development. In order these enterprises to remain competitive in both local and international markets it is of the utmost importance to gain understanding of which factors encourage the development of high EO. The present research is among the incipient investigations that attempts to compare EO in family and non-family firms and to identify individual, organizational, and environmental factors that mediate the effect of the family business status on EO in a sample from Central and Eastern Europe. The hypotheses are guided by previous theoretical and empirical research on EO and corporate entrepreneurship. The results reported in this study advance our knowledge about entrepreneurship within existing organization in a transition context.

This study reinforces previous findings (Zahra, 1991; Zahra, 1993b; Miller, 1983) that environmental dynamism is conductive for the development of EO only in the whole sample, but not in the sub-samples of family and non-family firms. The findings about the effects of individual characteristics of the CEO on EO are not consistent with predictions. The results show that there is no effect of CEO's level and education and tenure. These contradictory findings could be explained by means of institutional and cultural differences between Western and transition economies as well as among transition economies, which may have differential impact on CEO's behaviour and decisions related to pursuit of entrepreneurial opportunities.

Concerning organizational factors, the results point out the importance of learning orientation and growth strategy for adopting high EO. Similarly to Liu et al. (2002), we find that learning orientation is interrelated with the cultivation of EO in non-family firms. The finding that family firms with growth strategy are more willing to develop EO than the rest of the family firms is consistent with previous research (Zahra, 1991). Contrary to our predictions, however, the presence of foreigners or foreign legal entities among owners does not increase company's impetus to innovate, take risks, and behave proactively. This finding contradicts the previous empirical evidence about the positive effect of foreign owners on corporate entrepreneurship in a transition context (Liu et al., 2002).

We have demonstrated that environmental dynamism, the presence of foreign owners, and firm size account partially for differences in EO between family and non-family firms. Family firms exhibit lower EO because they are less likely to have foreigners among owners, they operate in a less dynamic environment and are smaller than non-family firms.

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Before discussing the implications of the findings, some limitations of the study should be noted. First, the sample is not representative and the findings should be interpreted with caution. Thus, the results may not be generalized to the population of Bulgarian enterprises. Second, data was collected through a self-reported survey and thus may be subjected to cognitive biases and errors. Third, a number of other individual, organizational, and environmental factors, which are not included in this study, may be related to EO. Forth, the findings may be influenced by specific features of the Bulgarian cultural and institutional environment and therefore may not be applicable to other transition or mature economies. Finally, due to the cross-sectional design of the research causal relationships cannot be deduced. The multiple measurements of independent and outcome variables in the study over time will allow examining the bidirectional relationships between the variables studied.

In order to enhance the understanding of EO in companies operating in a transition context, future research needs to examine the following aspects. First, future research should examine the mediation effects of other factors posited by theoretical and empirical literature as affecting EO, which are not included in this study. Second, the proposed hypotheses should be verified in a representative sample of Bulgarian enterprises. Third, future research should also examine to what extent the findings of this study can be generalized to family and non-family firms in other transitional countries. And finally, a longitudinal analysis should complement the findings in this research in order to confirm causal relationships.

The findings have several important implications for practitioners. Loan institutions, risk capitalists, and business angles trying to identify entrepreneurially oriented business in a transition context should pay more attention on organizational variables and environmental factors. Managers in non-family firms, who want to enhance the EO of their companies, should be aware of the interrelation between EO and learning orientation. The adoption of growth strategy in family firms may lead to higher EO. It should be noted that the company's ability to engage in entrepreneurial behaviour is highly dependent on the company's resources and competences (Covin and Slevin, 1991:15). Therefore, managers who aim to enhance EO of their businesses should make efforts to acquire the necessary resources and capabilities.

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Appendix

Table 1: Description of the variable used in the study.

Variable	Definition
EO	9-item, 7-point Likert scale (Covin and Slevin, 1989)
CEO_education	1 = university degree, 0 = other
CEO_tenure	CEO's tenure in the organization in number of years
FAMILY	1 = the company is family business; 0 = other
LO	11-item, 7-point Likert scale (Sinkula et al., 1997)
GROWTH	1 = the company aims to expand its business activities or to increase the number of employees; 0 = other
FOREIGN	1 = the presence of foreign owners; 0 = other
DYNAMISM	4-item, 7-point Likert scale (Miller, 1987)
SIZE	1 = more than 249 employees (large company); 0 = less than 250 employees (micro, small or medium-sized enterprise
FIRM_AGE	the age of the company in a number of years

Table 2: Descriptive statistics and correlations for the study variables (N = 120).

		Min	Max	Mean	S.d.	1	2	3	4	5	6	7	8	9
1	FAMILY	0	1	0.38	0.49	1								
2	CEO_education	0	1	0.95	0.22	-0.21*	1							
3	CEO_tenure	0	24	7.82	5.13	0.24**	-0.082	1						
4	LO	20	75	55.13	9.55	-0.01	0.160	0.11	1					
5	GROWTH	0	1	0.79	0.41	0.02	-0.024	0.07	0.35**	1				
6	FOREIGN	0	1	0.34	0.47	-0.46**	0.085	-0.32**	0.09	0.11	1			
7	DYNAMISM	6	28	18.64	4.20	-0.21*	0.063	-0.04	0.29**	0.27**	0.25**	1		
8	FIRM_AGE	1	108	14.76	18.07	-0.195*	0.046	0.23*	0.03	-0.08	0.02	-0.01	1	
9	SIZE	0	1	0.41	0.5	-0.249**	0.158	-0.06	0.09	0.09	0.36**	0.02	0.20*	1
10	EO	9	54	37.41	9.89	-0.26**	0.068	-0.01	0.44**	0.40**	0.25**	0.34**	0.07	0.26**

Note: ** Correlation is significant at the 0.01 level (2-tailed)
  * Correlation is significant at the 0.05 level (2-tailed).

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Table 3: Determinants of EO in family and non-family firms.

Variables	Model 1	Model 2	Model 3	Model 4
	Coeff. (S.e.)	Coeff. (S.e.)	Coeff. (S.e.)	Coeff. (S.e.)
	All	All	Family businesses	Non-family businesses
(Constant)	39.2*** (1.1)	10.5* (5.9)	15.8 (9.9)	5.9 (10.3)
FAMILY	-4.6** (1.8)	-3.2* (1.9)		
CEO_education		-1.7 (3.6)	-0.5 (4.2)	-0.04 (8.5)
CEO_tenure		-0.02 (0.2)	0.7 (0.5)	-0.2 (0.2)
LO		0.3*** (0.1)	0.06 (0.15)	0.4*** (0.1)
GROWTH		6.0*** (2.0)	8.2** (3.5)	4.0 (2.7)
FOREIGN		0.9 (1.9)	-4.7 (5.7)	1.0 (2.1)
DYNAMISM		0.4* (0.2)	0.4 (0.4)	0.3 (0.2)
FIRM_AGE		0.2 (0.0)	-0.6 (0.5)	0.02 (0.05)
SIZE		2.7 (1.7)	6.0* (3.4)	2.0 (2.1)
Adjusted R^2	0.044**	0.31***	0.17*	0.32***

Note: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table 4: Testing mediation effects on EO (DV).

Variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel test Z-value
IV: FAMILY	-4.610** (1.82)	-1.75** (0.78)	-3.337* (1.770)	
M: DYNAMISM			0.730*** (0.21)	-1.9*
Model fit	Ajusted R^2 0.044**	Ajusted R^2 0.033**	Ajusted R^2 0.129***	
IV: FAMILY	-4.610** (1.82)	-2.72*** (0.64)	-2.913 (2.024)	
M: FOREIGN			3.787* (2.075)	-1.68*
Model fit	Ajusted R^2 0.044**	Nagelkerke R^2 0.3	Ajusted R^2 0.62***	
IV: FAMILY	-4.610** (1.82)	-1.1*** (0.41)	-3.497* (1.837)	
M: SIZE			4.406** (1.811)	-1.8*
Model fit	Ajusted R^2 0.044**	Nagelkerke R^2 0.083	Ajusted R^2 0.082***	

Notes: * $p < 0.1$ * $p < 0.05$ ** $p < 0.01$

A constant has been estimated in Step 1, Step 3 and first row in Step 2 but is not included in the table.