

# Strategic planning practice in transition economies: Empirical evidence from the Macedonian context

**Stojan Debarliev, Marija Trpkova**

*Ss. Cyril and Methodius University in Skopje, Macedonia*

*e-mail: stojan@eccf.ukim.edu.mk, marijat@eccf.ukim.edu.mk*

The aim of this study is to examine a wider list of factors (business structure, management structure and environmental factors), whose impact on the strategic planning in the private sector has been investigated. A total of 212 questionnaires were collected from different size, age, industry type and ownership enterprises working in the private sector in Republic of Macedonia. In order to analyze the variables that are determinants of the strategic planning, multiple linear regression was used. The business size, business control, intention to change the operations and business flexibility are very important factors in the enterprises that have a significant correlation with the strategic planning incidence. The importance of this study lays in its contribution to all past studies and research referring to this subject in transition and emerging countries, with emphasis on the case of the Republic of Macedonia as a transition economy, as well as in the examination of a wider list of factors whose impact on the strategic planning was examined.

**JEL Classifications:** M10, P31

**Keywords:** Strategic planning, enterprises, transition economies, Macedonia.

## Introduction

Over the past three decades many empirical studies have approved the supporting role of strategic planning in creating better long term competitive positions and better organizational performance of the companies (Miller and Cardinal, 1994; Glaister and Falshaw, 1999; Kaplan and Beinbocker, 2003). The studies in this area also show that many changes that have occurred in developing, emerging and transition countries (Republic of Macedonia) have led to the faster diffusion of strategic planning, but the planning and performance literature has focused primarily on industrialized countries including the USA, UK, Canada, Australia and Japan, producing frameworks and models that are not necessarily applicable for developing or emerging countries (Al-Shammari and Hussein, 2008). Regarding the differences in strategic planning in different countries Greenley (1994) highlights “Although the principles of strategic planning should, of course, have universal application, there may be national differences in strategic planning, country dependent influences from business culture, and influences from different national trading conditions”.

Studies in this area in emerging countries have been conducted in Jordan and Egypt, where the relationship between strategic planning and organizational performance has been examined (Al-Shammari and Hussein, 2008; Elbanna, 2008) as well as in Turkey, where the influence of different factors on the degree of formalization of strategic planning and the influence of strategic planning on the organizational performance have been examined (Glaister et al., 2008).

In consideration of the above, the first purpose of this study is to contribute to all past studies and research referring to this subject in the private sector in emerging and transition countries, with emphasis on the case of the Republic of Macedonia with all of the specific characteristics of its business climate which is very similar to the business climate

of many countries from the SEE (South-Eastern Europe) region, whose primary purpose are the euro - integration processes.

What is in common for all these studies is the examination of several factors that influence the strategic planning practice or the lack of examination of the important factors' influence. Gibson and Cassar (2002) examined the influence of the business structure factors and the management structure factors without taking into consideration the influence of the external environmental factors. In another study the influence of the environmental factors has been measured, but with fewer other business factors (business size and industry type) (Falshaw et al., 2006). In a study where the extent of formalization of strategic planning has been researched, the effects of following three factors have been measured: business size, the expression of purpose and shared values through a mission statement for the company and the usage of outside funding sources (Geller, 2007). The second purpose of this study is to overcome this situation with the examination of a wider list of factors whose impact on the strategic planning will be examined, these are categorized in three groups: business structure factors, management structure factors and environmental factors.

## Literature review

It has been pointed in the introduction that many researches have been conducted in the literature from this area where the influence of different factors on the incidence of strategic planning has been examined. All these factors have been categorized by different criteria, and different results on the individual influence of each strategic planning factor have been determined. In the research conducted by Gibson and Cassar (2002) the impact of the business structure factors and management structure factors on the strategic planning practice has been measured. This research suggests that the business size, measured by the number of employees and revenues, the management training, the intention to change the operation and the major decision-makers' education and experience appear to have a significant association with the planning. Although business age and industry type affect the planning, this relationship is much weaker than the univariate analysis suggests. Falshaw and Glaister (2006) find that the firm size, industry type and environmental turbulence lead to a more formalized planning system. Geller (2007) demonstrated a significant correlation between the size of a company and clarity (the expression of purpose and shared values through a mission statement for the company) and the formalized strategic plan. Also, this study demonstrated no significant correlation between the necessity (use of outside funding sources) and the formalized strategic plan. Matthews and Scott (1995) suggest that "entrepreneurial firms engage in more sophisticated planning than small firms and that in both types of firms as perception of environmental uncertainty increases, strategic and operational planning decrease". Risseuw and Masurel (1994) find that planning intensity increases with environmental complexity and firm size and planning intensity decreases with firm's age and specialization rate.

## Development of hypotheses

In consideration of many factors that influence the strategic planning practice, as well as the limited range of different research in this subject, the purpose of this research is to examine the influence of a wider list of factors on the strategic planning practice (incidence)<sup>1</sup>, categorized in three groups: demographic factors (business size, business age, industry type and business ownership), management structure factors (specialization rate, intention to change the operations, use of outside and inside funding sources and business flexibility) and environmental factors (environmental dynamics).

<sup>1</sup> Strategic planning practice = incidence of strategic planning

## **A. Demographic factors**

1. Business size. Business size is demographic factor, or a business structure factor which has been very frequently used in research from this area and whose influence on strategic planning has been examined. Frederickson and Mitchell (1984) point out that the greater available resources (staff, expertise and time) and increased internal differentiation lead to increased planning. In their research they managed to confirm the positive association between business size and business planning. The positive relationship between business size and strategic planning has also been verified in other research from this area (Risseuw and Masurel, 1994; Geller, 2007; Falshaw and Glaister, 2006).

Hypothesis A1: The incidence of strategic planning increases as business size increases.

2. Business age. Business age is another demographic variable that has been frequently used in these types of studies. Gibson and Cassar (2002) find significant correlation between business age and strategic planning, but in two out of three sample years. However, rather than the linearly decreasing relationship expected in their study, the results suggest a U-shaped relationship between age and planning, with both relatively young firms and relatively old firms more likely to plan. Risseuw and Masurel (1994) in their research explain that there are reasons to assume that very young firms show higher planning intensity. "Entrepreneurs enforce their solvency by making a business plan. When a firm has proven its viability, it builds equity by retaining earnings and thus becomes less dependent on loans or venture capital".

Hypothesis A2: The incidence of strategic planning decreases as business age increases.

3. Industry type. Due to the influence of specific environmental factors in different sectors (industry types) in the economy, the enterprises from different industries could manifest differences in the planning behavior. Berman et al. (1997) examined the relationship between business growth and planning they find that production enterprises differ from other enterprises in the economy, because only in this industry type significant association has been indicated.

Hypothesis A3: There are differences in the incidence of strategic planning among different industry types.

4. Business ownership. Business ownership is the last business structure variable which will be examined in this study. This variable refers to the origin of the equity of an enterprise which determines if an enterprise functions as domestic or as foreign business. Elbanna (2008) stresses that this factor has been subject of several researches, where its influence on different management processes has been measured, although in his study this factor does not appear to have an effect on the relationship between strategic planning and effectiveness.

Hypothesis A4: There are differences in the incidence of strategic planning among different business ownership forms.

## **B. Management structure factors**

1. Specialization rate. The specialization rate refers to the scope of operations, activities, products or services in the enterprises' business portfolio. Risseuw and Masurel (1994, p.315) stress that: "The wider the scope of a firm's activities, the stronger will be the need for internal adjustment of employees' activities. The more specialized a firm is, the more it can rely on daily routine and existing experience, and the lesser the need to make formal plans for an unknown future." This has been confirmed by the research conducted by these authors, which reveals that planning intensity decreases as the specialization rate increases.

Hypothesis B1: The incidence of strategic planning decreases as the specialization rate increases.

2. Intention to change the operations. An intention to considerably change the firm's operations (business volume, new location, new line of products or services) might be related to the planning activities. Gibson and Cassar (2002) point out that the firm's effort to enhance its capacity to cope with the future is one of the reasons for the presence of planning in the enterprises. "Therefore, businesses intending to change (regardless of the intended direction of that change) business and which are merely thinking ahead about future operations may be more likely to plan".

Hypothesis B2: The incidence of strategic planning increases when an intention to change the operations exists.

3. Use of outside and inside funding sources. Although there are not many empirical findings on the influence of this factor on the strategic planning practice, Geller (2007) stresses that literature suggests that micro companies engage in formalized strategic planning (preparation of business plan) when in need of outside capital. Also, enterprises engage in formalized strategic planning (preparation of strategic planning) when they plan to finance their investments by issuing shares or increasing equity stakes. Despite this consideration, the research of this author does not support statistically significant association between strategic planning and the use of outside funding sources.

Hypothesis B3: The incidence of strategic planning increases when the enterprises use outside and inside funding sources.

4. Business flexibility. Rudd et al. (2008) identify four types of business flexibility: "operational flexibility is the organizational ability to rapidly adjust market offerings, product/service mix and production capacity; financial flexibility is the organizational ability to rapidly gain access to, and deploy financial resources; structural flexibility is the organizational ability to rapidly restructure; and technological flexibility is defined as the organizational ability to alter technological capacity in line with competitive requirements". In their study, these authors investigate the influence of strategic planning on these four flexibility types; the influence of flexibility on the non-financial and financial performance and the influence of flexibility on the mutual relationship between strategic planning and performance. In this study the joint influence of all four flexibility types will be measured, having in mind that enterprises with higher level of flexibility express greater readiness and ability to build internal capacity and to adjust to strategic changes in the external environment.

Hypothesis B4: The incidence of strategic planning increases as the degree of flexibility increases.

### **C. External environmental factors**

1. Environmental dynamics. As Bracker and Pearson (1986) note, entrepreneurs who apply structural strategic planning could be better prepared for anticipating and coping with future change. Risseuw and Enno (1994) in their research find that uncertainty caused by environmental complexity has a positive influence on the planning sophistication, although this is not confirmed as statistically significant and that the planning intensity is highest in an environment that is perceived as moderately dynamic. Falshaw and Glaister (2006) state that the strategic planning formality increases as environmental turbulence increases, which is confirmed by the research of many authors from this area (Boyd, 1991; Eisenhardt, 1989; Shrader, 1984; Armstrong, 1982). Another group of authors give some counter arguments that increasing turbulence could lead to reduced reliance on formal planning systems and greater reliance on experience or other informal systems (Minzberg, 1983; Fredrickson and Mitchell, 1984; Daft, 1992; Johnson and Scholes, 1997). Glaister et al. (2008) indicate that the correlation between planning and performance may be stronger in a turbulent environment, hence environmental turbulence leads to greater incidence, formalization and effectiveness of strategic planning.

Hypothesis C1: The incidence of strategic planning increases as environmental dynamics increases.

## **Methodology**

### ***Data collection method***

After construction of the questionnaire, 10 managers on different management levels with some experience in this type of research carried out the first review of the pilot questionnaire form. They were asked to give some suggestions in order to improve the questionnaire and to make it closer to terminology. After the modification of some parts and questions, the questionnaire was distributed by random choice to respondents in the entire territory of R. Macedonia in two ways: personally or by post in printed form and by e-mail in digital form. The questionnaire was strictly distributed to middle and top level managers and to enterprise owners (mostly in the case of small businesses).

### ***Sampling issues***

A total of 212 questionnaires have been collected in one month, which represent 60% of all distributed questionnaires to enterprises with different size, age, industry type and ownership form. Of the sampled enterprises, 14% are large enterprises, 33% are medium enterprises and 53% are small enterprises, i.e. 86 % are enterprises from the SME (small and medium enterprises) sector, which approximately reflects the real situation in the Macedonian economy. The organizations in the sample represent a variety of industries: trade and service (57%), production (35%) and construction (8%). It can be concluded that according to this criteria the sample reflects the economy in its entirety. The final demographic statistics of the sample refers to 79% domestic enterprises and 21% foreign enterprises.

### ***Operational measures***

**Incidence of strategic planning.** The incidence of strategic planning has been measured in different ways in studies from this area. There are studies where the incidence of strategic planning has been measured by its final products: vision, mission, strategic objectives and strategies (Lindsay and Rue, 1980; Al-Shammari, 2008), by creating a strategic plan (French, Kelly, and Harrison, 2004; Geller, 2007) or by using strategic planning methods and techniques (Elbanna, 2008). In this research, following (Harman and McClure, 1985; Al-Shammari and Hussein, 2008) with some modifications, we utilized the indicators presented in Table 1 to assess the incidence of strategic planning. Finally, we calculated the mean of the values appointed to each indicator on a five-point Likert scale.

**Business size.** Business size can be expressed in different forms, and it can be measured in different ways. There are many criteria (revenue, profit, assets, number of employees) which are usually jointly used to define the size of an enterprise.

Despite this fact, in these types of research the number of employees or the revenue of the firm are commonly used measures (Risseuw and Masurel, 1994; Falshaw and Glaister, 2006; Gibson and Cassar, 2002; Elbanna, 2008; Glaister et al., 2008). Hence, in this research the number of employees was measured in order to define the business size of each enterprise. This variable was not categorized in interval groups with the number of employees, but respondents were asked to fill in the exact number of employees in their enterprise. The business size was measured using the logarithm of the number of employees. Logarithmic transformation is generally used to normalize the business size variable (Falshaw and Glaister, 2006; Gibson and Cassar, 2002; Elbanna, 2008).

TABLE 1. INCIDENCE OF STRATEGIC PLANNING

Not at all	To a small extent	To a moderate extent	To a considerable extent	To a great extent
1	2	3	4	5
The extent to which the enterprise keeps written documents for the mission, objectives and strategies, for both the whole enterprise and its subunits				<input type="checkbox"/>
The extent to which the enterprise conducts a periodic review of the existing objectives and plans of the organization				<input type="checkbox"/>
The extent to which the enterprise prepares a clear budget for implementation of the formulated planning activities				<input type="checkbox"/>
The extent to which the enterprise controls the achievement of results and evaluates the success of the strategies' implementation				<input type="checkbox"/>
The existence of a special unit in charge of the planning in the enterprise				<input type="checkbox"/>
The extent to which the management creates commitment to strategic planning				<input type="checkbox"/>

Business age. Although business age could be expressed on a nominal scale as a categorized variable (Gibson and Cassar, 2002; Berman et al., 1997), in this research as in the case of the business size variable, business age was expressed as a continual variable, so respondents were asked to fill in the exact number of years. Logarithmic transformation was used to normalize the business age variable.

Industry type. In the studies from this area, the industry type is expressed commonly on a nominal scale, where all enterprises are divided in four sectors in the economy: production, trade, services and construction (Berman et al., 1997). Hence, the respondents were asked to select the industry type where their enterprise mostly operates.

Business ownership. Business ownership or corporate control presents a variable, which categorizes all enterprises in two groups: domestic and foreign enterprises (Elbanna, 2008). This categorization is completed according to the enterprise's dominant equity ownership, i.e., whether it is of domestic or foreign origin.

Specialization rate. As mentioned above, the specialization rate refers to the scope of operations, activities, products or services in the enterprises' business portfolio. In order for this variable to be measured the question was constructed by using a semantic differential scale, where between one bipolar phrase the respondents were asked to choose in what degree the total revenue of their enterprise was result of: small number of products and services (value 1) or a wide portfolio of products and services (value 5).

Intention to change the operations. The intention to change the enterprise's operation can be expressed by answering yes or no to the following question: Which of the following intentions, if any, (significant increase of the production level, opening a new location and introducing new goods or services) will be held over the next three years? (Gibson and Cassar, 2002). The respondents of this research were asked to answer to the previous question, but this time by using a semantic differential scale: there is no intention to change the operations (value 1) or there is intention to significantly change the operations (value 5).

Use of outside and inside funding sources. The use of outside funding source could include the following sources: commercial banks, credit unions, venture capital, business angels and other sources (Geller, 2007), and inside sources could include: issuing shares or increasing equity stakes. Regarding the use of any outside or inside funding sources, the respondents in this research were asked to indicate the following on a five point bipolar phrase: investments in the enterprise are not at all financed from outside or inside finding sources (value 1), investments in the enterprise are considerably financed from outside or inside finding sources (value 5).

Business flexibility. As it has been mentioned above, business flexibility can be expressed and measured by using four flexibility types: operational, financial, structural and technological. With some modification and adjustment of method in Rudd et al. (2008), the flexibility was measured as a mean of the appointed value for each of the phrases, by using a five-point Likert scale, presented in Table 2.

TABLE 2. BUSINESS FLEXIBILITY

Low flexibility		Moderate flexibility		High flexibility
1	2	3	4	5
Operational flexibility				
Change production with market demand				<input type="checkbox"/>
Change product mix with market demand				<input type="checkbox"/>
Financial flexibility				
Ability to fund resource changes from within				<input type="checkbox"/>
Ability to fund resource changes externally				<input type="checkbox"/>
Structural flexibility				
Communicate between departments				<input type="checkbox"/>
Reduce bureaucracy				<input type="checkbox"/>
Technological flexibility				
"Up to date" computer system				<input type="checkbox"/>
Adaptable computer system				<input type="checkbox"/>

Environmental dynamics. This variable was measured by using a scale-semantic differential consisting of 5 bipolar phrases with emphasis on the market and technical issues of the external environment, based on (Miller and Droge, 1986). The environmental dynamics was calculated as a mean of the values appointed for each of the bipolar phrases, from value 1 to value 5, presented in Table 3.

TABLE 3. ENVIRONMENTAL DYNAMICS

Our firm has to change its marketing practices to keep up with the market and competitors	1	2	3	4	5	Our firm must change its marketing practices extremely frequently
The rate at which products or services are getting obsolete in the industry is very slow	1	2	3	4	5	Treat of obsolescence is very high, as in some fashion goods
The competitors' actions are quite easy to predict	1	2	3	4	5	The competitors' actions are unpredictable
The demand and consumer tastes are fairly easy to forecast	1	2	3	4	5	The demand and taste are almost unpredictable
The production/service technology is not subject to much change and is well established	1	2	3	4	5	The modes of production/service change often and in a major way

## Analysis and results

In order to analyze the variables that are determinants of the strategic planning, multiple linear regression (MLR) is used. MLR is preferred since the response variable Incidence of strategic planning (SP) is continuous and it is measured as composite score. Despite the response variable, the analysis includes 9 predictor variables: Business size (SIZ), Business age (AGE), Industry type (IND), Company ownership (OWN), Specialization rate (SPE), Intention to change the operations (CH), Use of outside and inside funding sources (FIN), Business flexibility (FLX), Environmental dynamics (ED). Out of 9 predictor

variables, 4 are continuous variables and 5 are categorical variables. Details about the variables are in the Table 4.

TABLE 4. DATA SOURCE AND STATIONARITY TRANSFORMATION

Variables	Notation	Type of variable	Measure
Predictor variable			
Business size - logarithmical transformation	SIZ	Continuous	Logarithmical scale
Business age - logarithmical transformation	AGE	Continuous	Logarithmical scale
Industry type	IND	Categorical	Scale 1 - 4
Business ownership	OWN	Categorical	Scale 1 - 4
Specialization rate	SPE	Categorical	Scale 1 - 4
Intention to change the operations	CH	Categorical	Scale 1 - 4
Use of outside and inside funding sources	FIN	Categorical	Scale 1 - 4
Business flexibility	FLX	Continuous	Interval 1 - 5
Environmental dynamics	ED	Continuous	Interval 1 - 5
Response variable			
Incidence of strategic planning	SP	Continuous	Interval 1 - 5

Data includes total of 212 observations - companies.

The equation of the multiple linear regression is:

$$SP = \beta_0 + \beta_1 \log(SIZ)_{i1} + \beta_2 \log(AGE)_{i2} + \beta_3 IND_{i3} + \beta_4 OWN_{i4} + \beta_5 SPE_{i5} + \beta_6 CH_{i6} + \beta_7 FIN_{i7} + \beta_8 FLX_{i8} + \beta_9 OS_{i9} + \beta_{10} ED_{i10}$$

$$i = 1, 2, 3, \dots, 212$$

$$j = 1, 2, 3, \dots, 10$$

where  $x_{ij}$  is the value of the  $i^{th}$  case for the  $j^{th}$  predictor.

The results of the multiple linear regression model are presented in Table 5. From total of 9 predictor variables, 4 variables are statistically significant at 95% level of significance.

TABLE 5. DETERMINANTS OF STRATEGIC PLANNING IN MULTIPLE LINEAR REGRESSION MODEL

Variable	Coefficient	Std. error	t-stat.	p-value
C Constant	-1.397	0.742	-1.882	0.061
SIZ Business size	0.466	0.167	2.782	0.006*
AGE Business age	0.134	0.241	0.557	0.578
IND Industry type	0.057	0.098	0.585	0.559
OWN Business ownership	0.991	0.252	3.934	0.000*
SPE Specialization rate	0.017	0.079	0.213	0.832
CH Intention to change the operations	0.223	0.082	2.726	0.007*
FIN Use of outside and inside funding sources	-0.119	0.076	-1.560	0.120
FLX Business flexibility	0.514	0.148	3.460	0.001*
ED Environmental dynamics	-0.015	0.126	-0.117	0.907

Business size is positively and significantly associated strategic planning in the companies. The standard interpretation of coefficients in a regression analysis is that a one unit change in the predictor variable results in the respective regression coefficient change in



the expected value of the response variable while all the predictors are held constant. Business size was transformed logarithmically. Interpreting a logarithmically transformed variable can be done in such a manner; however, such coefficients are routinely interpreted in terms of percent change (Wooldridge, 2002). This means that when the enterprise's size increases by one employee, the strategic planning in the enterprise also increases by 0.466%.

Business age is a variable that is also transformed logarithmically. However, the p-value is 0.578 which means that the age of an enterprise does not have significant influence on the strategic planning in the companies.

Industry type has high p-value of 0.559. The conclusion about this variable is that the type of the industry is not a significant determinant of the strategic planning.

Business ownership has positive and statistically significant impact on strategic planning. This variable has two categories 1 - domestic ownership and 2 - foreign ownership. Since the relationship is positive, it can also be interpreted in following manner: foreign owned companies increase the strategic planning by 0.991.

Specialization rate does not have significant impact on the strategic planning.

Intention to change the operations has positive and statistically significant impact on the strategic planning. This is a categorical variable measured on a scale from 1 - there is no intention to change the operations to 5 - there is an intention for significant change the operations. Thus, if the intention to change the operations increases by one, the strategic planning will increase by 0.223.

Use of outside and inside funding sources has inverse and statistically insignificant effect on the strategic planning. Even though this variable cannot be interpreted as influential, it is interesting to comment the negative correlation with the strategic planning. Use of outside and inside funding sources is measured on a scale from 1 - there is no usage of outside and inside funding sources to 5 - there is a high usage of outside and inside funding sources. Apparently, no investment financing produces better strategic planning. Yet, since the coefficient is not significant, this thesis cannot be confirmed.

Business flexibility has positive and statistically significant effect on the strategic planning. This is a continuous variable measured on interval scale from 1 - 5, thus if the flexibility increases by one, the strategic planning will increase by 0.514.

Environmental dynamics don't have statistically significant influence on the strategic planning.

The adjusted determination coefficient  $R^2$ , or goodness of fit of the fitted regression is 25.9%. This means that the sample regression line fits the data not very well. It also means that the 25.9% of the total variation in the response variable Strategic planning is explained by the predictor variables entered in the regression model. The rest of the variation of 74.1% is explained by other variables, not included in the model. It has been said that if the sole purpose of regression analysis is prediction, the higher the  $R^2$ , the better the prediction (Gujarati, 2003). Low value of  $R^2$  indicates poor model for prediction of the strategic planning. Yet, the main purpose of the analysis was to identify important variables that have influence on the strategic planning. The prediction is not so important in the analysis.

Choosing a model that gives the highest  $R^2$  may be dangerous, for in regression analysis the objective is not to obtain a high  $R^2$  per se but rather to obtain dependable estimates of the true population regression coefficient and draw statistical inferences about them. In empirical analysis it is not unusual to obtain a very high  $R^2$  but find that some of the regression coefficients either are statistically insignificant or have signs that are contrary to a priori expectations. Therefore, the researcher should be more concerned about the logical or theoretical relevance of the explanatory variables to dependent variable and their

statistical significance. If in a process high  $R^2$  is obtained, well and good, on the other hand if  $R^2$  is low, it does not mean the model is necessarily bad (Gujarati, 2003).

Regarding the assumptions of the regression, the Durbin-Watson statistics is 1.997 which suggest that there is no autocorrelation in the data.

Multicollinearity is another assumption of the regression and it means existence of a “perfect” or exact, linear relationship among some or all explanatory variables of a regression model (Frisch, 1991). We use collinearity statistics presented in Table 6 to determine existence of multicollinearity.

TABLE 6. COLLINEARITY STATISTICS

Variables	Tolerance	VIF
SIZ	0.659	1.517
AGE	0.732	1.366
IND	0.924	1.082
OWN	0.852	1.173
SPE	0.810	1.235
CH	0.798	1.252
FIN	0.849	1.178
FLX	0.795	1.258
OS	0.907	1.102
ED	0.876	1.141

The tolerance is the percentage of the variance in a given predictor that cannot be explained by the other predictors. Thus, the high tolerances show that small percent 8%-35% of the variance in a given predictor can be explained by the other predictors. When the tolerances are close to 0, there is high multicollinearity and the standard error of the regression coefficients will be inflated. In our case most of the tolerances are close to 1. A variance inflation factor (VIF) greater than 2 is usually considered problematic, and the highest VIF in the table is 1.517.

The collinearity diagnostics confirms that there is no problem with multicollinearity.

## Discussion

Business size is positively and significantly associated strategic planning in the companies. Thus, hypothesis A1 (the incidence of strategic planning increases as business size increases) was supported. The positive relationship between business size and strategic planning has also been verified in other research from this area. As mentioned above this finding was expected and is consistent with the understanding that larger firms have more resources and internal differentiation that result in increased planning.

Business age does not have a significant influence on the companies' strategic planning, hence hypothesis A2 (the incidence of strategic planning decreases as business age increases) was not supported in this study. This finding cannot support the argument that very young firms show higher planning intensity, as well as firms that have proven their viability have less need to convince external stakeholders that business is solid (Risseeuw and Masurel, 1994). Anyway this finding is consistent with the result from (Gibson and Cassar, 2002) study, where these authors find significant correlation between business age and strategic planning, but in two out of three sample years, therefore they did not verify that the incidence of strategic planning decreases as business age increases.

The type of the industry is not a significant determinant of strategic planning, hence there is no evidence which can support hypothesis A3 (there are differences in the incidence of strategic planning among different industry types). Although in the literature, the industry type has been connected with other variables such as the formalization of the strategic planning process (Falshaw and Glaister, 2006) and with the organizational performance

(Berman et al., 1997), where differences among different industry types have been found, this study cannot find any industry type effect on the strategic planning in the Macedonian economy.

The results in the previous section show that the business ownership has a positive and statistically significant impact on the strategic planning, thus hypothesis A4 (there are differences in the incidence of strategic planning among different business ownership forms) was accepted in this study. Although there are not many studies in the literature that examine this variable in the context of the strategic planning practice which could lead to any conclusion, this finding was expected having in mind that the foreign companies which operate in Macedonia are successful companies with approved and well established business and management practice.

The specialization rate does not have a significant impact on the strategic planning in this study. The descriptive statistics shows that the average specialization rate of all enterprises in the sample is 3.53, which means that the total revenue of most of the enterprises was the result of a moderate to wide products and services' portfolio, but there is no clear evidence to support the hypothesis B1 (the incidence of strategic planning decreases as the specialization rate increases). This finding is not consistent with the finding from Risseuw and Masurel's study which reveals that the planning sophistication decreases with the specialization rate, having in mind that the more specialized a firm is, the more it can thrive on existing expertise and routine, which can be seen as planning substitutes.

The intention to change the operations has a positive and statistically significant impact on strategic planning, so this result indicates acceptance of the hypothesis B2 (the incidence of strategic planning increases when intention to change the operations exists). This finding approves the argument that businesses intending to change their operations and which are merely thinking ahead about future operations may be more likely to plan (Gibson and Cassar, 2002).

Use of outside and inside funding sources has a negative and statistically insignificant effect on strategic planning, therefore the hypothesis B3 (the incidence of strategic planning increases when the enterprises use outside and inside funding sources) was not supported in this research. Although literature suggests that micro companies engage in formalized strategic planning when in need of outside capital (Geller, 2007), this study's finding does not support this argument in the case of small, medium and large enterprises. Despite this argument, this study's finding is consistent with the finding of (Geller, 2007) research which does not support statistically significant association between strategic planning and the use of outside funding sources.

The business flexibility has a positive and statistically significant effect on strategic planning, thus the hypothesis B4 (the incidence of strategic planning increases as the degree of flexibility increases) was supported in this study. This finding was expected having in mind that enterprises with higher level of flexibility express greater readiness and ability to build internal capacity and to adjust to strategic changes in the external environment, which presents the essential role of strategic planning (Rudd et al., 2008).

The environmental dynamics do not have statistically significant influence on the strategic planning, thus there is no evidence for hypothesis C1 (the incidence of strategic planning increases as environmental dynamics increases) to be supported. This finding is consistent with the results from (Risseuw and Masurel, 1994) research where statistically significant correlation between the environmental dynamics and the planning intensity was not found, thus some arguments which were mentioned in the above sections about the relationship between environmental dynamics and the strategic planning practice can not be approved.

In consideration of these findings, managers could increase the level of strategic planning practice through the following activities:

1. Activities related to indicators of strategic planning practice: increase the extent to which the enterprise keeps written documents for the mission, objectives and

strategies, for both the whole enterprise and its subunits; increase the extent to which the enterprise conducts a periodic review of the existing objectives and plans of the organization; increase the extent to which the enterprise controls the achievement of results and evaluates the success of the strategies' implementation; and create a special units in charge of the planning in the enterprise.

2. Activities related to management structure factors: increase the ability to change production with market demand and change product mix with market demand; increase the ability to fund resource changes from within and obtain funding externally; increase the level of communication between departments and reduce the level of bureaucracy; and increase the degree of the application of "up to date" and adaptable computer systems.

## **Conclusion**

The results from this research indicate that the incidence of business size, business control, intention to change the operations and business flexibility are very important factors in the enterprises that have a significant correlation with the strategic planning incidence i.e. the incidence of strategic planning increases with business size, intention to change the operations and business flexibility; and there are differences in the strategic planning incidence among different business ownership forms.

The originality of this study lays in its contribution to all past studies and research referring to this subject in emerging and transition countries, with emphasis on the case of the Republic of Macedonia, as well as in the examination of a wider list of factors whose impact on the strategic planning was examined.

Managers on different management levels could better understand the strategic planning nature and role in their organizations, and thus they could affect some of the management structure factors in order to improve the strategic planning practice in their enterprises and the overall organizational competitiveness and effectiveness.

## **Limitations and further research**

Many findings have arisen from this study, but they must be viewed with caution especially in interpreting the associations found between the predictor variables and the response variable. It may be that other factors associated with the predictor variables (business structure, management structure and environmental variables) influence the strategic planning incidence. Although a wide list of predictor variables is the subject of this study, yet other variables concerned with different dimensions of the enterprises could be taken into account when we analyze causality with the strategic planning practices in different enterprises.

Although this study provided an answer to many issues concerned with the strategic planning practice, there are still many investigations to be done in order to fully explain the strategic planning practice nature and role in enterprises. Further research needs to examine one very important issue concerned with strategic planning, such as the relationship between the strategic planning practice and the organizational performance i.e. organizational effectiveness. Thus, we could approve the real value of strategic planning for enterprises and the importance of all these factors which were examined in this study.

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