

Strategic Planning Flexibility and Firm Performance: The Moderating Role of Environmental Dynamism

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Abstract

Adaptation is a crucial challenge for organizations, and an important theme in the strategy and organization theory literature. Lately, more has been written about adaptive or flexible strategic planning processes by which adaptation is achieved. In this paper we focus on a basic element of the adaptation process, i.e. flexibility within the strategic planning process. Many authors have depicted strategic planning as being excessively formal and rigid, arguing some flexibility is essential in strategic planning process. This article attempts to contribute to this debate at both theoretical and operational levels by taking into account a commonly evoked contingency factor (environmental dynamism) and by putting a particular emphasis on the operationalization of firm performance. An international quantitative empirical study conducted among firms from all around the world (Europe, North America, and Asia) reveals a positive association between strategic planning process flexibility and firm performance regardless of the level of environmental dynamism.

Keywords: Planning flexibility, dynamism, performance.

INTRODUCTION

With increasingly intense competition, shrinking product cycles, accelerated technological breakthroughs, and progressively greater globalization, the business arena may best be described as being in a chronic state of flux, with continual variation in its external environment. Given such ever changing environmental conditions, a firm's ability to change direction quickly and to reconfigure strategically is crucial to its success in achieving sustainable competitive advantage (Hitt et al., 1998). In other words, firms need to be adaptive to environmental change (Mintzberg, 1994; Dreyer and Grønhaug, 2004). Adaptation is a crucial challenge for organizations, and an important theme in the strategy and organization theory literature (Sharfman and Dean, 1997). In this regard, Volberda (1996) argues that under hyper-competitive conditions that characterize the current environment, companies will prosper only if they have the adaptive capacity. In this article we focus on a fundamental element in the adaptive process that is strategic flexibility and, precisely, the flexibility of strategic planning process. Flexibility relates to a firm's capacity to adjust to change and/or exploit opportunities resulting from environmental changes (Dreyer and Grønhaug, 2004). Therefore, the strategy literature has long recognized the flexibility as a natural source of competitive advantage of companies and as an effective tool to cope with the uncertainty created by rapid changes in the environment (Spicer and Sadler-Smith, 2006; Alpkan et al., 2007). To survive and prosper in turbulent and unpredictable environments, firms need to embrace *strategic flexibility* (Hitt et al., 1998; Johnson et al., 2003; Golden and Powel, 2000). Consequently, many empirical evidence supports that strategic flexibility drives firm performance (Grewal and Tansuhaj, 2001; Nadkarni and Narayanan, 2007). It is therefore not surprising that the academic and practitioner literature in strategic management is increasingly recognizing strategic flexibility as an important research area (Nadkarni and Herrmann, 2010).

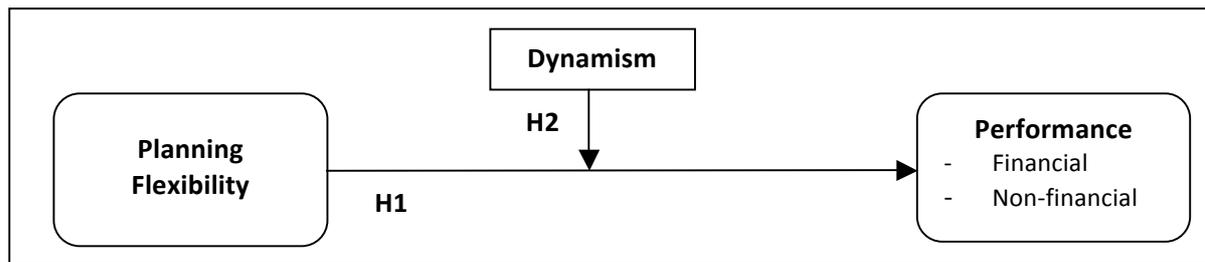
In this study, we examine the impact of flexibility on performance in a context of strategic planning. In other words, firms are called upon to review and change their strategic plans in light of evolutions in the external environment. At most, we attempt to examine if flexibility of strategic planning - that translates in review and modify strategic plans - has an impact on performance. Therefore, two major questions are to be treated: **(i)** Does flexibility of strategic planning lead to higher firm performance? **(ii)** Does environmental dynamism affect the relationship between flexibility and performance?

The article is divided into four major sections: The next section defines the different concepts of the research; a second one announces research hypotheses, a third section in which methodology of research is described. In the final section, the results of the tests are presented and the implications discussed.

1. THEORY AND HYPOTHESES

The basic model of this research is shown in Figure 1. It helps to measure the direct influence of flexibility of strategic planning process on the firm performance and to scrutinize whether this relationship is affected by environmental dynamism. The concepts included in the model are described in the next section of this article. They were selected on the basis of their theoretical interest and their mobilization in the previous works, which can help to put into perspective the results of this research with those of previous works.

Figure 1: Research model



1.1. KEY CONCEPTS

1.1.1. Flexibility in strategic planning process

Flexibility is a complex and multidimensional concept that is difficult to define satisfactory (Dreyer and Grønhaug, 2004). For example, Eardley et al. (1997) suggest that flexibility is the ability to change direction quickly or deviate from a predetermined course of action, or as Evans (1991) define it, «ability to do something other than that which was originally intended». Generally, the available definitions suggest that flexibility is an ability or a capability that an organization has to change or to react (Golden and Powel, 2000). However, the notion of strategic flexibility has received a great attention in strategic management and organization theory literature. Conceptually, strategic flexibility suggests the ability to take some action in response to external environmental changes (Evans 1991; Johnson et al., 2003) and thus can be viewed as a strategic capability (Aaker and Mascarenhas, 1984). Thus, Hitt et al., (1998) conceptualizes strategic flexibility "...as the capability of the company to proact or respond quickly to changing competitive conditions and thereby develop and/or maintain

competitive advantage” (p.26). In general terms, strategic flexibility refers to the company's agility, to its capacity to adapt and respond in a timely and appropriate manner to substantial, uncertain, and fast occurring environmental changes that have a meaningful impact on the organization's performance (Roca-Puig et al., 2005; Aaker and Mascarenhas 1984; Golden and Powell, 2000; Upton, 1995). Consequently, strategic flexibility can be conceptualized in two ways. First, with regard to the variation and diversity of strategies. Second, to the degree at which companies can rapidly shift from one strategy to another (Slack 1983). Also, Johnson et al. (2003) make important distinction between proactive flexibility and reactive flexibility. Proactive flexibility entails the ability to anticipate changes in the future environment while reactive flexibility indicates an ability to rapidly and effectively respond to changes in the current environment once they become evident (Celuch et al., 2007).

Flexibility in the strategic planning process or like others called it “planning flexibility” has been considered as a primary component of strategic flexibility as well as a valuable strategic tool for companies faced complex and uncertain markets (Barringer and Bluedorn, 1999). Furthermore, strategic planning process is considered as a logical and continuous process involving a number of sequential steps for the purpose of forming the strategy of the firm such as: the definition of the mission and long-term objectives, analysis of the environment, generating and evaluating alternative strategies, the implementation and finally monitoring performance (Ansoff, 1968; Crittenden and Crittenden, 2000). The notion of planning flexibility was first suggested by Kukalis (1989) to investigate how environmental and firm characteristics affect the design of strategic planning systems. Strategic flexibility is defined as the extent to which new alternative decisions are generated and taken into account in the strategic planning process, allowing for positive organizational change and adaptation to environmental turbulence (Evans, 1991; Grewal and Tansuhaj, 2001). Thus, Barringer and Bluedorn (1999) suggested that the concept of flexibility in planning means the ability to adjust strategic plans to rapidly changing in environment. For others, planning flexibility is rather about preparing strategic plans that are changeable, adaptive, and responsive; and the organizational ability to change them when necessary (Alpkan et al., 2007). According to Kukalis (1991), the antecedents of flexibility in the strategic planning system include short-term planning and frequent reviews and revisions to adapt to evolutions in environment. In this context, the notion of planning flexibility is considered as a primary component of strategic flexibility (Barringer and Bluedorn, 1999), i.e. the property of possessing maneuvering capabilities in adjusting strategic objectives (Lau, 1996), modifying strategic

plans (Evans, 1991), replicating core technologies (Galbraith, 1990), reallocating resources (Buckley and Casson, 1998).

However, a flexible approach of planning process is well adapted in a dynamic environment, allowing firms to quickly adjust their strategic plans in order to exploit market opportunities and to monitor and control the environmental fluctuations (Kukalis, 1989; Dreyer and Grønhaug, 2004; Grewal and Tansuhaj, 2001). This should result in continued improvements in customer value and achieving sustainable competitive advantages (Matthyssens et al., 2005). Flexibility of planning process is a critical factor for strategic plans adaptation to the changing competitive environment (Dibrell et al., 2007). According to Bhalla et al. (2006), without any managerial action to ensure survival through flexibility and adaptation, rigidity in planning may lead to disasters in the long run. In some types of industry it is not enough to achieve a competitive advantage on cost or differentiation. Companies are increasingly concentrating on achieving a competitive advantage based on flexibility (Upton, 1995). In fact, strategies based on flexibility are gaining particular importance in the new competitive environment characterized by a high level of uncertainty (Volberda, 1996; Hitt *et al*, 1998). A flexible planning process, complemented by appropriate internal management systems, could be the best strategic practices for firms facing dynamic market conditions (Alpkan et al., 2007; Brews and Hunt, 1999; Venkatraman, 1990).

1.1.2. Environmental dynamism and planning flexibility

The environmental dynamism is presented as a fundamental variable in studies carried out on the link between strategic planning processes and firm performance (Tegarden et al. 2003; Tegarden et al., 2005). In general, environmental dynamism refers to the rate of change and the level of factors instability within an environment (Li and Simerly, 1998). It could thus be defined with reference to technological change and instability or unpredictability of the environment (Tegarden et al., 2005).

The intensity and the degree of competition a company faces, forcing companies to adopt a flexible planning approach (Moorman and Miner 1998). Uncertainty in the competitive environment makes strategic flexibility valuable (Dreyer and Grønhaug, 2004). In a competitive environment, strategic flexibility is a valuable tool for prosperity and survival of firms (Aaker and Mascarenhas 1984). A number of theorists have argued that the need for flexibility in all areas of organizational design is increasing and that is due to the increasingly rapid pace of environmental change (Aaker and Mascarenhas, 1984). While flexibility is considered as an adaptive response to environmental turbulence (Gupta and Goyal, 1989), it is

important to realize that a firm may use its strategic flexibility to proactively re-define market uncertainties and make it the cornerstone of its ability to compete.

1.1.3. Performance.

In the literature two types of measures of the firm performance to distinguish: first, financial measures or again objective measures, for example, *return on assets* (ROA), *return on sales* (ROS), et *return on equity* (ROE). Second, non financial measures or again subjective measures, for example, shareholders' satisfaction, employee's satisfaction, customers satisfaction (Hart, 1992; Ong and Teh, 2009). Of fact, Operationalization of performance refers to the selection of the appropriate measures when assessing company performance. An important question has arisen concerning the relevance of the exclusive use of traditional financial criteria (financial measures) with respect to other non-financial criteria. For instance, Falshaw *et al.* (2006) have noted that financial measures of performance can capture only one part of the company's profitability.

Performance is often presented as a multidimensional concept (Hart, 1992). Nevertheless, its measurement remains difficult (Chakravarthy, 1986; Falshaw *et al.*, 2006). Nonetheless, the mode of performance operationalization is considered as one of the potential methodological causes of the contradictory results of empirical works on the relationship between comprehensiveness and performance (Powell, 1992; Brock and Barry, 2003). Consequently, it is generally recognized that it is quite difficult to choose appropriate measures for company performance (Hart, 1992).

1.2. HYPOTHESES

1.2.1. Relationship between planning flexibility and performance

There is a substantial theoretical corpus in the academic literature regarding the impact of flexibility on performance. For the past decade, strategic flexibility has been increasingly recognized as a critical organizational competency that enables firms to achieve and maintain competitive advantage and superior performance in today's dynamic and competitive business environment (Sanchez, 1995; Hitt *et al.*, 1998; Evans, 1991; Johnson *et al.*, 2003). As like many authors arguing, for example, Barringer and Bluedorn (1999) and Slater and Narver (1998) that, there is further empirical evidence showing that flexibility of strategic planning has a significant impact on performance. Other authors stated that strategic flexibility allows for the attainment of high performance and the ability to take advantage of firm opportunities (Nadkarni and Herrmann, 2010; Sanchez, 1995). Thomas (1996) documented that the ability to take action and adopt swiftly is a primary determinant of superior performance in many

industries. In other hand, for others, strategic flexibility can influence firm performance by promoting creativity, innovation, and improved competitive capability (Hitt et al., 1998; Johnson et al., 2003). In the basis of these considerations, we propose the following hypothesis:

H1. Strategic flexibility is positively related to firm performance.

1.2.2. Environmental dynamism as moderating factor of planning flexibility-performance relationship

Hitt et al. (1998) argued that in today's competitive landscape, characterized by increasing strategic discontinuities, disequilibrium, hypercompetition, innovation, and continuous learning, firms' success depends on their ability to respond quickly to changing competitive conditions. In fact, many authors have found empirical support arguing that strategic flexibility has a major impact on the performance of firms in turbulent and unpredictable environments (Nadkarni and Narayanan, 2007; Grewal and Tansuhaj, 2001; Lau, 1996). Thus, many others studies argue that strategic flexibility may be more important in fast-changing industries than in slow-changing industries (Hitt et al., 1998; Johnson et al., 2003; Nadkarni and Narayanan, 2007; Sanchez, 1995). Therefore, we propose the following hypothesis:

H2. Environmental dynamism moderates the relationship between Strategic flexibility and firm performance.

2. METHODOLOGY

The description of the research methodology concerns three points: the population, the sample and the method of collection of the data; the operationalization of the various research concepts; the method of data analysis.

2.1. POPULATION, DATA COLLECTION, SAMPLE

The population was the whole of the private and public firms in the world. Indeed, the only used criterion to define the target population was the availability of the email address of the firm. No other criterion such as the sector of activity, the country, the size of the firm, etc. was considered. About 160000 email addresses were collected from various sources as Internet or data bases such as Kompass, Diane, etc. The data of this research were collected by means of an electronic survey send to target firms between January 2010 and July 2010. The administration of the survey was done via internet. An accompaniment letter explained the objective and the structure of the survey has been send with. So to administer the survey to target firms, we placed it on the site www.keysurvey.com. It is suitable to specify that about 22% of the 160000, almost 35200 emails, did not arrive to destination, for cause of inexact or

changed addresses, anti spam measures, etc. Finally, 441 exploitable responses were obtained, a rate of response of about 0.003%.

2.2. CONCEPTS OPERATIONALIZATION

As shown in Appendix 1, the constructs in our study are developed by using measurement scales adopted from prior studies (Segars et al.1998; Papke-Shields et al. 2002; Papke Shields et al., 2006). All constructs are measured using seven-point Likert scales with anchors strongly disagree (= 1) and strongly agree (= 7), with the exception of performance measurement that is average scores. Finally, reliability coefficients (Cronbach's alpha) obtained in this study are satisfactory and in almost are similar to those found in previous research.

2.2.1. Flexibility

Strategic flexibility is measured using a scale of four items developed by Segars *et al.*, (1998). This scale of measurement was used in several prior studies (Papke-Shields *et al.*, 2002; 2006). As shown in Appendix 1, four aspects of strategic flexibility are represented on this dimension. The first measure reflects the evaluation and review of strategic plans. The second measure is used to determine the adjustment of strategic plans. The third measure considers the strategic planning as a continuous process. The fourth measure is related to the discussion of strategic issues in strategic planning process.

2.2.2. Performance

Given the difficulty of measuring business performance (Falshaw *et al.*, 2006), we chose to retain two types of complementary measures: financial measures and non-financial measures (Hart, 1992; Ong and Teh, 2009). As shown in Appendix 1, the financial performance is measured using a scale of three items developed and validated by Ramanujam and Venkatraman (1987). This scale was used in other several studies (Papke-Shields et al., 2002; Papke-Shields et al., 2006). To measure financial performance, respondents were asked to evaluate and compare sales growth, earnings growth and return on investment of their companies versus their direct competitors. As for non-financial performance, it is measured by a scale we have built by inspiring from previous works (Shrivastava et al., 2006; Rudd et al., 2008; Elbanna and Child, 2007). This scale for measuring non-financial performance correspond to evaluation by respondents of the satisfaction of shareholders, satisfaction of customers and satisfaction of employees of their firms versus their direct competitors.

2.2.3. Environmental dynamism

The environmental dynamism is measured by a scale developed and published by Baum and Wally (2003). As shown in Appendix 1, this scale distinguishes two characteristics of the dynamic environment: the first concerns the rate of evolution of products, services and firm practices in its competitive environment; the second concerns the speed of products/services obsolescence in the sector of business activity. Based on these two characteristics, a new dichotomous variable was created to distinguish dynamic environments of stable environments (not dynamic). This variable takes the value 0 for lower values of the average of the two initial variables (e.g., below of median value) and 1 for the highest values of the average of the two initial variables (e.g., greater than the median value). This approach corresponds to the median technique commonly used to dichotomize continuous variables (Glaister et al., 2008).

2.3. METHOD OF ANALYSIS

Several different methods are deployed to analyze the research data: (1) SPSS software is used to calculate descriptive statistics (mean, standard deviation) for variables included in the research, the matrix of correlations between these variables and some measures of psychometric quality of variables (Cronbach's alpha, KMO); (2) SmartPlant software is used in addition to SPSS software to calculate several indices of reliability and validity of variables (AVE and C.R.); (3) AMOS software was used to test the research hypotheses by using several structural equation models. In particular, models of multi-group structural equations are used to test the impact of the contingency factor.

3. RESULTS

This section presents the successively descriptive statistics, psychometric quality of variables, then the result of testing hypotheses.

3.1. DESCRIPTIVE STATISTICS

Table 1 presents the descriptive statistics (mean and standard deviation) and correlation coefficients of the variables included in the research, with the exception of the contingency variable (environmental dynamism). It is noted that the averages vary between 4.73 and 5.36 and standard deviations between 0.982 and 1.636. Because for a scale of 1 to 7, the median is 4, we can note that the averages are close to the median (central value) while generally being slightly higher. Moreover, the level of standard deviations shows that there is some variability in the distribution around the average. This means that the different variables have enables to

capture phenomena with a clear central tendency (average, slightly higher than 4) and a real dispersion (standard deviations between 0.982 and 1.636 points). As for the examination of correlations, it shows that they are all significant ($p < 0.01$). The items of dimension flexibility are highly correlated (minimum correlation = 0.522). Thus, the dimension flexibility is also highly correlated with financial and non-financial performance as well as global performance (minimum correlation = 0.302).

Table 1: Means, standard deviation and correlations

N°	Items / Variables										
		Mean	Standard deviation	1	2	3	4	5	6	7	8
1	Flex_1	4.73	1.553	1	0.667	0.63	0.522	0.839	0.267	0.321	0.32
2	Flex_2	4.96	1.424	0.667	1	0.669	0.557	0.854	0.314	0.374	0.375
3	Flex_3	5.36	1.552	0.63	0.669	1	0.58	0.859	0.236	0.319	0.301
4	Flex_4	4.78	1.636	0.522	0.557	0.58	1	0.802	0.202	0.288	0.266
5	Flexibility	4.95	1.291	0.839	0.854	0.859	0.802	1	0.302	0.387	0.375
6	Fin_Performance	4.82	1.141	0.267	0.314	0.236	0.202	0.302	1	0.665	0.923
7	Non_Fin_Performance	5.03	1.010	0.321	0.374	0.319	0.288	0.387	0.665	1	0.901
8	Performance	4.93	0.982	0.32	0.375	0.301	0.266	0.375	0.923	0.901	1

All Correlations significant at the 0.01 level.

N=441

Table 2 presents the results of descriptive statistics concerning the dynamic environment. There is a real variety in the intensities of dynamic environment represented in the sample. Furthermore, dichotomization results in two groups with practically equal numbers (223 and 218 firms). The group at low dynamism (223 companies) presents a level of dynamism between 1 and 3.5 while the group at high dynamism (218 companies) has a level of dynamism between 4 and 7. A test of mean differences between these two groups shows that the averages are significantly different between the two groups ($p = 0.000$).

Table 2 : Descriptive statistics – Dynamism of environnement

Dynamism	Frequency	Percentage	Cumulative percentage
1.00	18	4.1	4.1
1.50	25	5.7	9.8
2.00	51	11.6	21.3
2.50	40	9.1	30.4
3.00	43	9.8	40.1
3.50	46	10.4	50.6
4.00	51	11.6	62.1
4.50	36	8.2	70.3
5.00	34	7.7	78.0
5.50	36	8.2	86.2
6.00	36	8.2	94.3
6.50	15	3.4	97.7
7.00	10	2.3	100.0
Total	441	100.0	
Level of dynamism			
Low	223	50.6	50.6
High	218	49.4	100.0
Total	441	100.0	

3.2. PSYCHOMETRIC QUALITY OF VARIABLES

The psychometric quality of variables is assessed through the following two properties: reliability and validity.

Table 3: Reliability and convergent validity of variables

Concepts	Items	Alpha	C.R.	AVE	KMO
Flexibility	4	0.859	0.9044	0.7034	0.821
Dynamism	2	0.751	0.8459	0.7387	0.500
Fin_Performance	3	0.887	0.9282	0.8118	0.717
Non_Fin Performance	3	0.780	0.8727	0.6972	0.683
Fin + Non_Fin Performance	6	0.885	0.9094	0.6264	0.832

3.2.1. Reliability

Table 3 contains the results concerning the reliability assessed using Cronbach's coefficient alpha and composite reliability (C.R.). It is noted that all measures are greater than the recommended limits of 0.70. The alpha coefficients ranged from 0.751 (dynamism) to 0.887

(financial performance) and those of composite reliability (C.R.) between 0.846 (dynamism) and 0.928 (financial performance). The variables are considered as sufficiently reliable.

3.2.2. Validity

The two main forms of validity are examined: discriminant validity and convergent validity. Convergent validity was assessed by the average variance extracted (AVE), values greater than or equal to 0.50 are considered satisfactory as well as by the measure of the Kaiser-Meyer-Olkin (KMO) for which values superior than 0.50 are considered satisfactory (Lucian *et al.*, 2008). As shown in Table 3, all measures of the AVE and the KMO met or exceeded the threshold of 0.50, suggesting that the conditions for convergent validity are satisfied by the variables used in this research.

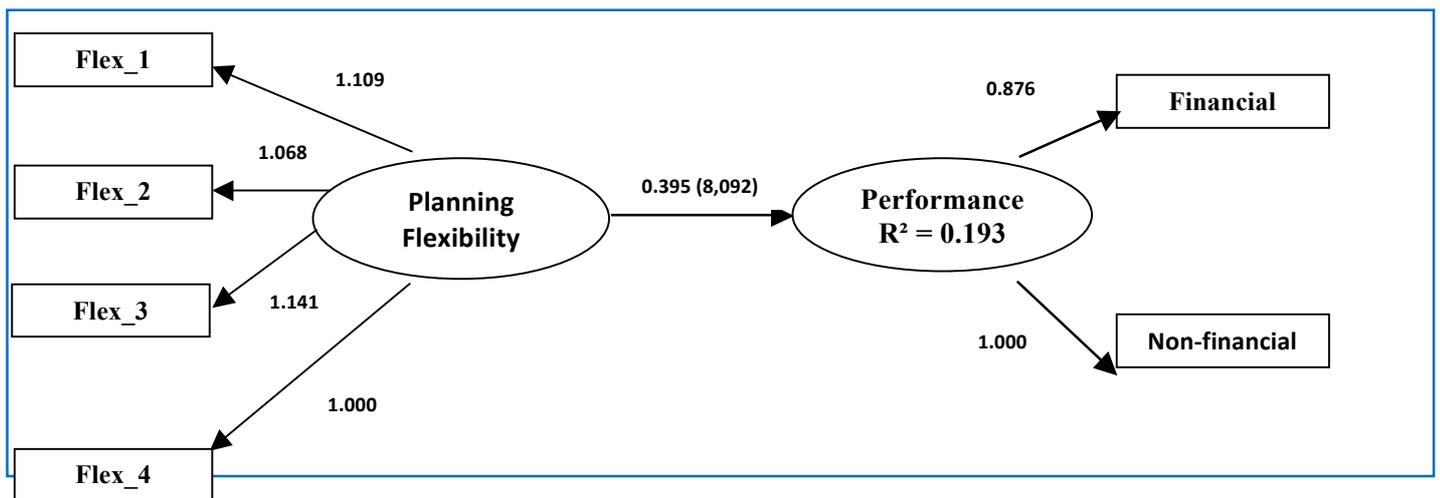
Discriminant validity shows that a measure is empirically distinct and different from other measures. It is established when the average variance extracted (AVE) is greater than the square cross-correlations of constructs (Fornell and Larcker, 1981). As shown in Table 3, the AVE of the two dimensions namely strategic flexibility and performance exceeds the squared correlations of inter-constructs (see correlation in table 1), suggesting that the conditions for discriminant validity are met by the variables used in this research.

In sum, examination of descriptive statistics (frequencies, averages, standard deviations) and psychometric qualities (reliability, convergent validity, discriminant validity) of the variables of the concepts of this research shows that we have good measures to proceed to testing hypotheses.

3.3. HYPOTHESES TESTING

Hypothesized relationships inspired from research model (Figure 1) were tested using structural equation models several estimated by using AMOS software. The two hypotheses, one examining the direct relationship between strategic flexibility and performance, the other hypothesis examining the impact of the contingency factor (dynamic of environment) on this relationship are accepted. Figure 2 shows the results of the first hypothesis test. Coefficients are not-standardized and values in parentheses correspond to T of Student. As can be seen, all coefficients are positive and significant. Table 4 presents the overall results of hypotheses testing.

Figure 2: Relationship between flexibility of strategic planning process and firm performance



Regarding the direct link, and as expected by H1, flexibility of strategic planning process significantly and positively affects performance ($\beta = 0.345$, $T = 5.860$, $p < 0.01$), therefore, H1 is accepted.

Table 4: Hypotheses testing

Hypotheses	Path specified	Coefficient	T	Chi-2	df	P	RMSEA	CFI
H1	Strategic flexibility - Performance	0.345	5.860	15.641	16	0.478	0.000	1.000
H2	Dynamism – Strategic flexibility	0.395	8.092	20.100	21	0.515	0.000	1.000

The moderating role of contingency factor (dynamic of environment) in the relationship between Strategic flexibility and performance has been tested through multi-group analysis. The constrained model postulating the similarity of factorial structures and structural coefficients between the two groups (low/high dynamism) has a very good fit to empirical data concerning the Strategic flexibility ($\text{Chi-2} = 20.100$, $df = 21$, $p = 0.515$). The difference between constrained and unconstrained models ($\text{Chi-2} = 4.459$, $df = 5$, $p = 0.485$) emerged as not statistically significant. Finally, the structural coefficients of the constrained model ($\beta = 0.395$, $T = 8.092$, $p < 0.01$) correspond to the postulated hypothesis. Therefore, H2 is supported, which means that environment dynamism does not moderate the relationship between the comprehensiveness of strategic planning and performance.

We could therefore conclude that the flexibility of strategic planning process has a positive impact on firm performance independently of environmental dynamism.

4. DISCUSSION

The results of this research suggest a significant relationship between the flexibility of strategic planning process and firm performance. These results are consistent with several previous studies (Sanchez, 1995; Hitt et al., 1998; Evans, 1991; Johnson et al., 2003; Nadkarni and Herrmann, 2010; Sanchez, 1995). These results illustrate the importance of flexibility of strategic planning process as a tool enabling firm to adapt and respond quickly to environmental changes for exploiting quickly and efficiently the different advantages and opportunities in the environment (Dreyer and Grønhaug, 2004; Levy and Powell, 1998).

These results confirm further many arguments in favor of the flexibility of strategic planning process. For example, flexible decision-making processes are open to new ideas, new alternatives, new roles, and to different sources of information within and outside the organization (Tushman et al., 1986; Sharfman and Dean, 1997). Such processes are more likely to produce the types of innovative decisions that facilitate organizational adaptation (Sharfman and Dean, 1997). Therefore, planning flexibility has become one of the most important factors in achieving strategic objectives and thereby competitive advantage (Lau, 1996).

Our results show also that the relationship between flexibility of strategic planning and firm performance is not moderated by environmental dynamism. This result is in fact original and does not found in previous studies. These results contradict several previous studies assuming a evident impact of environmental dynamism on this relationship (Hitt et al., 1998; Johnson et al., 2003; Nadkarni and Narayanan, 2007; Sanchez, 1995). Therefore, our results indicate that flexibility of strategic planning process is beneficial in a stable environment as in an unstable one. This is probably through the adaptation to environmental changes (Dreyer and Grønhaug, 2004; Levy and Powell, 1998); the production of innovative decisions (Sharfman and Dean, 1997) and the rapidity of exploiting the new opportunities from external environment (Porter and Millar, 1985; Van de Ven, 1986). Nowadays, flexibility is considered an essential requisite for firms wishing to survive and prosper (Sanchez, 1995).

In sum, it appears that flexibility of strategic planning process has a positive impact on firm performance independently of the dynamism of environment.

CONCLUSION

Examining the impact of the strategic flexibility on firm performance is one of the fundamental issues of research has received a great attention for at least two decades both from researchers and practitioners. But, empirical studies examine the relationship between flexibility of strategic planning process and firm performance are noticeably absent in the current literature (Rudd et al., 2008).

The main aim of this paper has been to study the impact of flexibility of strategic planning process on firm performance. The review of the literature on flexibility revealed a positive impact of flexibility on performance, and this impact is very higher in a turbulent environment than in a stable environment. In our study, we have attempted to empirically test the impact of flexibility of strategic planning process on performance, and the findings indicate that flexibility is a valuable skill which has a major impact on firm performance among the firms studied. In fact, our research has attempted to provide new conceptual, methodological and empirical understanding of the nature of comprehensiveness-performance relationship.

Conceptually and in relation to the concept of business performance, a literature analysis allowed us to identify and integrate two forms of performance: a financial form and non-financial form. We also tried to clarify the role of possible contingency factors. Here too, analysis of the literature allowed us to detect and integrate a contingency factor frequently mentioned: environmental dynamism.

Methodologically, we adopted reliable measures for the three variables that set up our research model. Also, our sample includes companies from all continents, in contrast to most previous empirical studies whose data were often exclusively North-American. In fact, our study is, to our knowledge, one of the first studies that have explicitly modeled and empirically tested in a global context the relationship between flexibility of strategic planning and performance. Empirically, by using the method of causal modeling, we examined this relationship as well as the moderating effect of environmental dynamism on the relationship. The results show a positive and significant association between flexibility of strategic planning and financial and non-financial performance, which tends to confirm the results of many previous studies. Moreover, despite the insistence of many writers on the role of contingency factors, we found that environmental dynamism does not affect this relationship, unless this relationship between flexibility of strategic planning and performance has been

slightly stronger in a dynamic environment than in a stable environment, which significantly does not consider.

This research could have important theoretical, methodological and practical implications. Theoretically, it could contribute to a better understanding of the relationship between flexibility of strategic planning and firm performance. The confirmation of the positive impact of flexibility on the performance, the lack of environmental dynamism moderation could also be a theoretical contribution. Methodologically, our research has attempted several advances: it focused on an international sample (European, North-American, Asian companies) whereas previous studies focused mainly on North-American companies, it proposes a new operationalization of the concept of performance (financial and non-financial); it considers the psychometric qualities (reliability, convergent validity, discriminant validity) of variables, it mobilizes a rigorous procedure of hypotheses testing through structural equation models. In practice, it points out to leaders that the flexibility of strategic planning process improves financial and non-financial performance regardless of the dynamism of environment.

This research is obviously not without limits. For example, it is only quantitative. Qualitative case studies, even interviews with some decision makers might usefully complement quantitative data. Future research could address this limit.

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Appendix 1: Variables Operationalization

FLEXIBILITY	ITEMS	REFERENCES
Flex_1	We constantly evaluate and review strategic plans.	Segars <i>et al.</i> , (1998) Papke-Shields <i>et al.</i> (2002 ; 2006)
Flex_2	We frequently adjust strategic plans to better adapt them to changing conditions.	Segars <i>et al.</i> , (1998) Papke-Shields <i>et al.</i> (2002 ; 2006)
Flex_3	Strategic planning is a continuous process.	Segars <i>et al.</i> , (1998) Papke-Shields <i>et al.</i> (2002 ; 2006)
Flex_4	We frequently schedule face-to-face meetings to discuss strategic planning issues.	Segars <i>et al.</i> , (1998) Papke-Shields <i>et al.</i> (2002 ; 2006)
PERFORMANCE	ITEMS	REFERENCES
Financial	<ul style="list-style-type: none"> - Sales growth. - Earnings growth. - Return on investment. 	Papke-Shields <i>et al.</i> (2006)
Non-financial	<ul style="list-style-type: none"> - Shareholders satisfaction - Customers satisfaction - Employees satisfaction 	Shrivastava <i>et al.</i> , (2006) Rudd <i>et al.</i> , (2008)
DYNAMISM	ITEMS	REFERENCES
Dynamism_1	Our firm must frequently change its products and practices to keep up with competitors.	Baum and Wally (2003)
Dynamism_2	Products/services quickly become obsolete in our industry.	Baum and Wally (2003)