

**ORGANIZATIONAL STRUCTURE AS MODERATOR OF THE  
RELATIONSHIP BETWEEN STRATEGIC MANAGEMENT  
AND GLOBAL PERFORMANCE: CASE OF TUNISIAN SME'S  
INVOLVED IN THE UPGRADING PROGRAM**

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**ABSTRACT**

This paper focuses on the reality of strategic management in Tunisian companies. It is suggested that the organizational structure has an effect not only on the choice of the adoption of strategic management, but also on the contribution of strategic management to global performance. It performs an empirical investigation into the moderating effect of organizational structure on the relationship between strategic management and global performance. Data from representative survey of 276 Tunisian SMEs involved in the upgrading program revealed no direct effect of organizational structure on the strategic management. Organizational structure is not married to strategic management. Each of the dimensions of organizational structure (formalization, standardization, and centralization) does not explain the adoption of strategic management. It revealed also the absence of moderating effect of organizational structure on the relationship between strategic management and global performance. Strategic management does not explain the variation of the global performance for given organizational structure attributes (formalization, standardization, and centralization). However, results show that only strategic management has a direct effect on the global performance, which means that only the strategies defined by strategic management lead to high performance whatever the organizational structure.

**Keywords:** strategic management, organizational structure, global performance, Tunisian SMEs, structural equation model

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## 1. INTRODUCTION

The topic of strategic management and performance is of central importance in organizational studies that challenges any company, specifically Tunisian SMEs which are confronted in recent years to a high level of competitiveness. Indeed, since the accession of Tunisia to the World Trade Organization and the signing of the free trade agreement with the European Union in 1995, the challenge of international competition and survival of the company is more stated. Thus, Tunisian SMEs operate in a context of profound and radical changes that require them to break with the culture of protectionism and move towards market culture. This change is radical in so far as at the time of protectionism the concept of strategic management has no meaning at least the majority of Tunisian companies, whereas today it is the guarantor of its competitiveness. Based on this observation, and in line with previous researches, this research aims to study the impact of the organizational structure on the choice of the adoption of strategic management and its influence on the contribution of strategic management at the global performance. It attempts to answer the following question: "Does the organizational structure influence the adoption of strategic management and affect the contribution of strategic management to global performance?" The central hypothesis of this research refers to the organizational structure that occurs not only in the choice of adoption of strategic management, but also in the contribution of strategic management to the global performance. Our main motivation is summed up in our desire to know, explain and measure the impact of strategic management on the global performance taking into consideration the effect of the organizational structure, and this in the context of Tunisian SMEs. The moderator effect of organizational structure may help researchers delve deeper into the relation between strategic management and global performance. The specific aims of the research are multiple. We distinguish:

1. Analyze whether the Tunisian SMEs adopt strategic management
2. Draw a portrait of Tunisian SMEs that adopt strategic management and those that do not
3. Identify the effect of the organizational structure on the adoption of strategic management by Tunisian SMEs
4. Evaluate the effect of the organizational structure on the contribution of strategic management in the performance of Tunisian SMEs

## 2. THEORY AND HYPOTHESES

In the following section we intend to highlight some of the salient and prevalent issues of strategic management. In particular, we will discuss the definition of strategic management, which is followed by a discussion on the relationship between strategic management and firm performance. In addition, we will also examine how the organizational structure plays a moderating effect on the relationship between strategic management and global performance.

### 2.1 Strategic management

Since its introduction in the 50s, the concept of strategic management played a vital role in companies. It is essential to describe development and survival of businesses through this concept. Introducing a definition of strategic management is not straight forward since researchers do not agree on a universally accepted definition due to the interchangeability of related concepts such as strategy, strategic management, business policy, strategic decisions, strategic processes, and many other concepts more or less close to the first of this series (Mintzberg *et al.*, 1998). According to Koenig (1996), this interchangeability may cause negative consequences to the extent that it becomes a generator of misunderstandings and conflicting results, which translates into reproducibility and generalization. Many books and researches consider the strategic management as a field of research representing multiple realities. Contrary to this general sense, experts provide considerable details, considering the strategic management as a field of application that integrates specific dimensions.

Different authors have viewed strategic management differently. Some viewed it as decision-making; while others considered it as the set of activities related to the formulation and implementation of strategies to achieve organizational goals. The early definition of strategic management was provided by the American business historian, Ansoff (1972) who defined strategic management as: develop strategies, organize skills of the company and organize the implementation of these strategies and skills. In the context of construction, Sharplin (1985) defines strategic management as the formulation and implementation of plans and the carrying out of activities relating to the matters which are of vital, pervasive or continuing importance to the total organization. In the other hand, according to Glueck et Jauch (1984), strategic

management means a stream of decisions and actions which lead to the development of an effective strategy or strategies to help achieve business goals.

Different contributions highlight significant dimensions of strategic management (Hunger et Wheelen, 2003; Ansoff, 1984; Hussey, 1984). They show that the latter is concerned with the design, preparation and conduct of collective action by developing strategies to guide the development of the company. The first dimension appears directly, since the term strategy is embedded in the concept of strategic management. Indeed, the strategies can be imposed by the environment, which may condition the management. The management then determines the success of the implementation of strategic choices. The two concepts are inseparable, and the strategy appears both as the result of strategic management and the object of his conduct. Strategic management is therefore a matter of formulation as implementation strategies. It is a process by which strategists formulate, implement and monitor corporate strategies (Coulter, 2002; Hill et Jones, 2001). It includes formulation, implementation, evaluation and control (Hunger et Wheelen, 2003). It also can be defined as the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives (Epstein et Roy, 2007). Thus, strategic management is a process that helps business strategies to better target the efforts of members of the company towards the achievement of organizational goals.

In the same line, Avenier (1988) provides a fundamental contribution to strategic management by defining it as a process that aims to ensure a tight coupling between strategies and operations through the decentralization of strategic thinking, by the involvement of people who will be responsible for implementing the developed strategies. Several definitions support this tendency to place the members of the company at the heart of strategy formulation. Illustratively, "*The strategy is a decentralized organizational exercise that involves all employees (or at least the middle and upper management) of the organization and not just the general direction*" (Dobers, 1997, p.38). Chakravarthy (1997) assume that the analysis is too often affair consultants, planners and other experts. The business strategy should be developed by the employees themselves.

This new vision indicates that the strategic management represents a bridge between the formulation and implementation of the strategy, rather than treating them separately, and this through the integration of members of the company in strategic thinking. It allows direct the evolution of the company through the two inseparable phases which are formulation and implementation. Strategic management is different compared to strategic planning by the inseparability phases of strategy formulation and implementation.

In contrast with strategic planning, the articulation between formulation and implementation of the strategy and this through the integration of operational in strategic thinking. In strategic planning, the result of strategic thinking is an action plan designed by planners who will then "sell" it to the operational managers responsible for its implementation. In strategic management, these are decisions for action that are developed by those who have to implement them. They are therefore less likely to generate resistance to their application and be misinterpreted as frequently happens in the case of decisions taken in the context of strategic planning.

In conclusion, according to Avenier (1988), we define strategic management as a decentralized strategy process, marking the link between strategy formulation and implementation through the participation of different hierarchical levels in strategic thinking. This definition captures two main elements which are in the heart of strategic management:

- a / Fixing strategies both internally (on the resources and core competencies of the company) and externally (relating to transactions between the company and its environment)
- b / Integration of individuals of non-equivalent hierarchical status in the formulation of strategies

## 2.2 Relationship between strategic management and performance

The company performance is often a topic studied in management science. According to Goodman and Pennings (1977), it is an essential element in the analysis of organizations and we can't have a theory of organizations that did not include this concept. Strategy specialists share the same opinion considering the performance as an essential element of the Charter of strategic management (Carroll and Vogel, 1987; Hambrick, 2004; Chakravarthy and Doz, 1992). In this

perspective, researches on the question of the relationship between strategic management and performance, are seeking to identify the success factors or causes of failures. In general, all these studies had as a goal to find the right style of management that contribute to the performance of the company. Most contributions argued that the causes of firms failure, especially SMEs, are a direct result of the lack of strategic direction. They are more concerned with short-term goals and short-term results rather than long-term goals or long-term results. Very often, activities are daily, which leads to deal with everyday problems and ignore the environment, eclipsing any strategic thinking. However, through the work of famous scientists like Alfred Chandler, Igor Ansoff, Peter Drucker, Michael Porter and Henry Mintzberg, the concept of strategic management has become central in the organization and management in achieving a better performance. It should facilitate the company's growth and enable it to increase its performance and competitiveness (O'Regan et Ghobadian, 2005; Porter, 1996).

In the case of SMEs, the intensification of competition in almost all industries leads SMEs towards strategic management in order to occupy a better competitive position (Larsen *et al.*, 1998). At this level, several researches have shown that companies using thoughtful strategies have better results than those who did not (Berman *et al.*, 1999; Kargar, 1996; Brinckmanna *et al.*, 2010). The essence of strategy development means for a company to provide strategic direction to the company in order that it can achieve its vision and mission. The adoption of a clear strategic growth path then allows companies to ensure consistency, compatibility and strategic continuity changes incurred by the company.

### **2.3 Moderating effect of organizational structure**

Since the 60s, the specialists on organizational structure have questioned the existence of a dependency relationship between strategy and structure. They sought to know who is the strategy or structure, which precedes the other dimension. This relationship took two opposite but complementary directions, and one direction can't eliminate the other. The first direction suggests that "structure follows strategy" is initiated by Chandler (1962). This representation was later confirmed by many other studies (Channon, 1973; Rumelt, 1974; Bouchikhi, 1990). Other researchers have developed a form of antithesis "strategy follows structure" highlighting

feedback structural elements on the content of the strategy (Mussche, 1974; Laporta, 1974; Ansoff *et al*, 1974).

In view of the second direction, the organizational structures have many functions. First, they always act as means of implementing the strategy, but they also constitute a binding framework and choice of strategy. Second, they are a mean of contact with the environment and protection against it, and they fulfil a function of reducing uncertainty. Third, they also provide various functions related to the maintenance of cohesion and group identity that constitutes the organization. Indeed, the structures incorporate power relations and strategies of actors working in the organization (Crozier et Friedberg, 1977). They form a framework in which political processes take place that affect, in turn, the capacity of the political system (Tabatoni et Jarniou, 1975; Desreumaux, 1986). Based on these functions, it appears that the organizational structure plays an important role in the formulation and implementation of strategy, and therefore it can play a moderator role between strategic management and global performance. Thus, we suggest that under different structural conditions, and procedures, organizational structure can play an important role in determining the strategic management and global performance.

According to Mintzberg (1978), the literature on organizational structure advances a serie of parameters such as: specialization, formalization, training and education, systems planning and control, standardization, link mechanisms, grouping units, unit size, decentralization, and system decision. However, the most cited and most used in studies focusing on the relationship between organizational structure and business strategy are: formalization, standardization and centralization (Brisson, 1992; Kalika, 1995; Desreumaux, 1992; Chandler, 1989; Mintzberg, 1978).

Given the significant differences in the parameter of the organizational structure from industry to industry and firm to firm, it seems natural to suggest that: 1. The decision to adopt or not to adopt the strategic management is a conscious choice that results from organizational structure. 2. The relationship between strategic management and global performance may also vary from

one organizational structure to another. Therefore, the well established role of organizational structure leads us to the following hypotheses:

H1: The adoption of strategic management depends on the organizational structure

H1.1: The more the organizational structure is formalized, the more likely strategic management is to be adopted

H1.2: The more the organizational structure is standardized, the more likely strategic management is to be adopted

H1.3: The more the organizational structure is centralized, the more likely strategic management is to be adopted

H2. Organizational structure influences the contribution of strategic management to the global performance

H2.1: The more the organizational structure is formalized, the more likely is strategic management to have a positive effect on the global performance

H2.2: The more the organizational structure is standardized, the more likely is strategic management to have a positive effect on the global performance

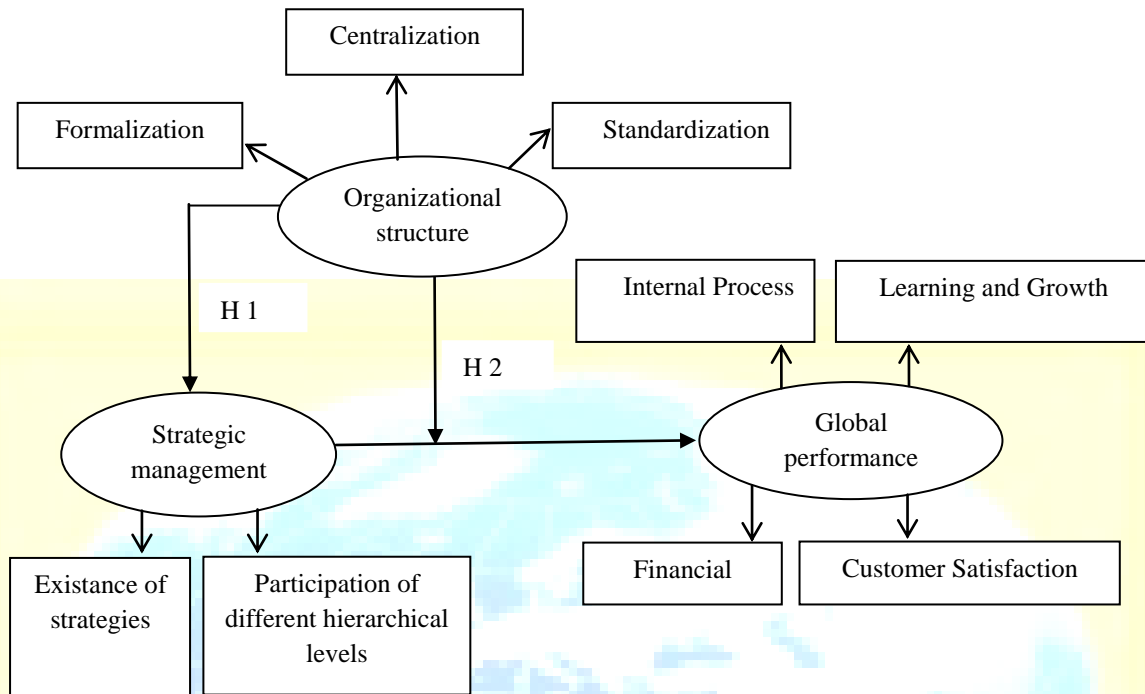
H2.3: The more the organizational structure is centralized, the more likely is strategic management to have a positive effect on the global performance

## 2.4 Conceptual model

In order to apprehend the reality of adoption by companies of strategic management, precisely why do some firms adopt strategic management while other firms don't do it, we propose a theoretical model that focuses on relations between three variables: strategic management, organizational structure and global performance. From the literature review, we wish to test two relations (see Figure 1). The first relationship seeks to verify that the choice of the adoption of strategic management is influenced by the organizational structure. The second relationship aims to examine the existence of a causal link between the achievement of global performance and strategic management, taking into consideration the organizational structure.



Figure 1: conceptual model



### 3. METHODOLOGICAL APPROACH

In order to test the proposed model and hypotheses, it is important to pay attention to the choice of the population, sample, data collection, measures of the concepts, and methods of hypothesis test.

#### 3.1 Sample of research

To test the research hypotheses, a quantitative data collection was conducted among a representative sample of 276 SMEs involved in the upgrading program. The sample is stratified by industry (see Table 1). The choice of this population is motivated by four reasons. First, Tunisian companies involved in the upgrading program (PMN) should correspond to the required profile for the program which requires any company wishing to participate must formulate strategies. Second, these companies belong to different sectors where the states of the environments are different, allowing to understand various aspects of such companies. Third, the population covered by our research is difficult to identify because of the originality of the concept of strategy in at least the majority of Tunisian companies, and the lack of research examining the practices of Tunisian companies in strategy formulation. Fourth, the study of the

strategic process, and the factors influencing its evaluation, is a particularly sensitive issue for businesses.

Some precisions must be mentioned. First, according to the classification adopted by the PMN, the SME is a company with a total investment of less than 3 million Tunisian Dinars. Second, to build a representative sample we applied the law of Bernoulli:  $n = (1.96)^2 \times N / (1.96)^2 + L^2 \times (N-1)$ , with  $L=10\%$ . Third, because of the absolute refusal or incomplete or unsuccessful promises of questionnaires, we excluded from the sample companies from the following sectors: Leather and Footwear Industry (LFI), Chemical Industry (CHI), and Materials Construction Ceramics and Glass Industry (MCCGI).

Table 1: Research sample

	<b>AFI</b>	<b>VI</b>	<b>MI</b>	<b>TCI</b>	<b>Total</b>
Population (SME)	300	329	326	1143	2098
	$n_1$	$n_2$	$n_3$	$n_4$	N
Percentage $n_i / N$	<b>14,30%</b>	<b>15,68%</b>	<b>15,53%</b>	<b>54,48%</b>	<b>100%</b>
Sample ( $n / N = 13,16 \%$ )	40	43	43	150	276
	$n_1$	$n_2$	$n_3$	$n_4$	n
Percentage $n_i / n$	<b>14,49%</b>	<b>15,60%</b>	<b>15,60%</b>	<b>54,35%</b>	<b>100%</b>

The abbreviations in the table are as follows:

AFI : Agro-Food Industry

VI : Varied Industry

MI : Mechanical Industry

TCI : Textile and Clothing Industry

### 3.2 Data collection

The conceptual model and the hypotheses developed to test the relations were empirically tested in a survey research; a pre-test questionnaire was performed to validate its content. Following the suggestions and comments received from participants, we were asked to make changes and adjustments. The final questionnaire was addressed to Directors of SMEs.

### 3.3 Measures of variables

For each variable, we use Likert scales of items ranging from 1 = strongly disagree to 5 = strongly agree.

### 3.3.1 Strategic management

With reference to the definition of strategic management that was adopted in this research, two key variables were used that constituted its essence: the existence of strategies, and strategic thinking shared between individuals of non-equivalent hierarchical status. Participation is defined as the usually sense of taking part, the work of making together, act together, to cooperate in an action requiring multiple actors. In this sense, strategic management is measured through three dimensions according to Calori and Atamer (1989): Information, Consultation and Initiation. Information means that the decision is made by the leader. Subordinates are informed of the reasons, after taking decision by the leader. Consultation means that the decision is taken by the leader after consulting one or more subordinate. Initiation means that the decision is the result of a consensus between leader and one or more subordinate.

### 3.3.2 Organizational structure

Organizational structure is measured through three dimensions according to Brisson (1992), Kalika (1995), Desreumaux (1992), Chandler (1989) and Mintzberg (1978): Formalization, Centralization and Standardization. Formalization means the high amount of written documentation in the organization. Centralization means that the top hierarchical level has authority to make a decision and gives little discretion to lower level employees. Standardization includes high number and control of procedures, job descriptions, regulations, and policy manuals.

### 3.3.3 Global performance

Global performance in this study is schematized by the balanced scorecard (Kaplan et Norton, 1996). As a model of firm performance, the characteristic of the balanced scorecard and its derivatives are a mixture of financial and non-financial measures. In its simplest form, the balanced scorecard breaks performance monitoring into four interconnected perspectives: Financial, Customer Satisfaction, Internal Process, and Learning and Growth. Financial perspective covers the financial objectives of an organization and allows managers to track financial success and shareholder value. Customer perspective covers the customer objectives such as customer satisfaction market. Internal process perspective covers internal operational goals and outlines the key processes necessary to deliver the customer objectives. Learning and Growth perspective covers the intangible drivers of future success such as human capital,

organizational capital and information, capital including skills, training, leadership, organizational culture, system and databases.

#### 4. HYPOTHESIS TEST

To test the research hypotheses, a structural equation model is used to analyze the causal relationships between strategic management, organizational structure and global performance. The application of this model requires a two-step process: validation of models for measuring and testing the structural model (Anderson et Gerbing, 1988; Kline, 2005).

##### 4.1 Test method of direct links

The first hypothesis H1 considering the choice of adoption of strategic management is influenced by the organizational structure. It focuses on a direct causal link between organizational structure (independent variable) and strategic management (dependent variable). To test the direct effect of organizational structure on strategic management, two rules must be respected (Kline, 2005). First, the significance of the postulated links. It has traditionally been studied in relation to the normal probability distribution. Each unstandardized regression coefficient is divided by its standard deviation, giving the value T from which it is possible to calculate a level of likelihood associated. The threshold most commonly accepted social science is 5%, which corresponds to an absolute minimum value of  $T = 1.96$ . Second, once a causal link is deemed significant, we must consider the value of the regression coefficient in a first time to see if its sign corresponds to the direction assumed for the effect. Then, in a second time, it is also interesting to look at the magnitude of the regression coefficient to see the strength of causal links.

##### 4.2 Test method of indirect links

The second hypothesis H2 envisages a moderating effect of the organizational structure on the relationship between strategic management and global performance. It covers an indirect causal link between strategic management (independent variable), the global performance (dependent variable) and the organizational structure (moderating variable).

To test the moderating effect of the environment, the process of Ping (1995) is the best known and recommended approach for its simplicity and robustness (Cortina *et al.*, 2001; Moulder et Algina, 2002). It is to perform hierarchical regressions incorporating new variables created by

multiplying the scores of the independent variables and scores of moderating variables (Cohen et Freund, 2005; El-Akremit, 2005).

### 4.3 Preliminary analysis

First, we conduct a cluster analysis to classify the firms in our sample according to the degree of strategic management adoption. Second, we discuss the results of the validation phase of our measuring instruments.

#### 4.3.1 Cluster analysis

To measure the degree of strategic management adoption by the companies surveyed, we conducted a hierarchical cluster analysis using the method "Two-Step Cluster" SPSS 18.0. We used the likelihood distance and the optimization criterion BIC (Bayesian Information Criterion) as criteria groupings. The results identified two classes which characteristics are shown in Table 2. Class 1 named "strong strategic management adoption" is the largest (170 companies) representing 61.6 % of the sample. The class 2 named "low strategic management adoption" is smaller (106 companies) which represents 38.4% of the sample. These two classes are distinguished by 10 criteria in order of importance (see Table 2).

Table 2: Results of the cluster analysis method "Two-Step Cluster"

Criteria in order of importance	Class 1 (n= 170)	Class 2 (n= 106)
1. Existence of financial strategy	100%	77,4%
2. Participation of middle managers	100%	15,3%
3. Participation of senior managers	31,2%	100%
4. Form of participation of senior managers: Consultation / Initiation	18,2%	84%
5. Form of participation of middle managers: Consultation	73,6%	12,8%
6. Existence of personnel strategy	100%	36,8%
7. Existence of commercial strategy	100%	36,8%
8. Form of participation of middle managers: Information	26,4%	87,2%
9. Existence of production strategy	100%	22,6%
10. Existence of supply strategy	31,2%	61,3%

In Class 1, all companies have strategies (financial, personnel, sales, and production) and only 31.2 % of companies have supply strategy. 31.2% of companies refer to senior managers, and all companies refer to middle managers for formulation of these strategies. These companies are

therefore appealing to middle managers as senior managers. The participation of senior managers for 18.2% of companies focuses on both the consultation and initiation. While the participation of middle managers is limited to consultation for 73.6 % of companies and to information for 26.4 % of companies. Therefore, companies are open for the integration of middle managers in strategy formulation. These are associated with strategic choices, being consulted. Their role is not limited to providing their superiors the information needed to strategy formulation.

In Class 2, companies have strategies in different proportions (77.4 % for the financial strategy, 61.3 % for the supply strategy, 36.8 % for personnel strategy, 36.8 % for commercial strategy, and 22.6 % for the production strategy). This shows the lack of strategies for most of these companies. 15.3 % of companies refer to middle managers and all companies refer to senior managers for strategy formulation. Therefore these companies refer more to senior managers than middle managers. Senior managers' participation for 84% of companies is focused on both the consultation and initiation. However, the participation of middle managers on the consultation is 12.8% of the companies, and the information is 87.2% of companies. In these companies, the strategy is primarily for senior managers with a low willingness to involve middle managers. Indeed, senior managers participate by being consulted and having a opinion in strategic choices. While middle managers primarily play as a source of information and they are less consulted in the formulation of strategies.

#### **4.3.2 Test and reliability of the measurement model**

Validation of measuring instruments includes studying the dimensionality of scales and the internal consistency, convergent and discriminated validity.

##### **A / Exploratory factor analysis**

Examination of the dimensionality of the scales is performed by an exploratory factor analysis (EFA) carried out with SPSS 18.0 software. It is performed on the sample of research (276 SMEs). The reliability of the scales, which is to study their internal consistency, was assessed by Cronbach's alpha coefficient and Rho Jöreskog. Table 3 summarizes the results obtained following the procedures to purify our scales. Only two scales measuring formalization and centralization of an organizational structure proved to

be sufficiently homogeneous to match our initial expectations. However, two items have been eliminated from the measurement scale of the standardization of an organizational structure.

Table 3: Reliability test of organizational structure

Symbol	Dimensions	Number of items	Cronbach Alpha	Rh $\hat{o}$ de Jöreskog
FORMAOS	Formalization of an Organizational Structure	3	0,862	0,897
STANDOS	Standardization of an Organizational Structure	6 ; (4)	0,673 ; 0,845	0,859
CENTROS	Centralization of an Organizational Structure	4	0,916	0,928

**B / Confirmatory factor analysis**

Thus, examination of the dimensionality of the scales is also done by a confirmatory factor analysis (CFA) which has been dealt with through AMOS 8.0 software. It covers only the 170 SMEs in class 1 "strong adoption of strategic management". The criteria for convergent and discriminant validity are applied to mobilized scales. The results show that for each construct, all absolute index, incremental and parsimony meet the standards of good fit and show an acceptable fit of the model (see Table 4).

Table 4: Confirmatory factor analysis test

	$\chi^2/ddl$	GFI	AGFI	RMR	RMSEA	NFI	CFI	pvc
FORMAOS	2,74	0,98	0,97	0,011	0,078	0,98	0,98	0,745
STANDOS	3,41	0,95	0,93	0,012	0,082	0,96	0,97	0,607
CENTROS	3,71	0,96	0,91	0,019	0,088	0,97	0,98	0,766
Thresholds (Roussel et al, 2002)								
	<2 see <5	>0.9	>0.8	→ 0	<0.08	>0.9	>0.9	>0.5

**C / Discriminant validity**

The study of discriminant validity is the last stage of testing validity and reliability of measurement instruments. The result of comparison between the two models is summarized in Table 5. The difference test of chi-square is significant. Indeed, the difference between the two values is NMIC 931.741 for a difference of degree of

freedom of 91. This difference is significant according to the test of Chi-square. Also, it was noticed that the fit of the model (Mu) is significantly better than the model (Mc). We conclude that the discriminant validity of the different latent variables included in the overall model is established.

Table 5: Difference test of Chi-square for discriminant validity

Unconstrained model (Mu)		
$\chi^2 = 2197,508$	ddl = 1339	RMSEA = 0,048
Constrained model (Mc)		
$\chi^2 = 3129,249$	ddl = 1430	RMSEA = 0,065
Comparison Mc-Mu		
$\Delta\chi^2 = 931,741$	$\Delta\text{ddl} = 91$	P < 0,001

The internal construct validity (convergent and discriminant) and reliability have been established, it is possible to approach the test of the research model (Roussel *et al.*, 2002).

## 5. RESULTS

After having validated measurement instruments, the research hypotheses are confronted with the survey data.

### 5.1 Adjustment of the structural model

Analysis of adjustment indices presented in Table 6 shows that the structural model fits the empirical data perfectly. In addition, analysis of modification indices and the residue matrix indicates no changes can substantially improve the adjustment. In addition, the model explains a significant part of the variance of all variables (see Table 6). This part even reaches 84% for the centralization, 83% for formalization, 72% for standardization, and 76% for global performance. We decide to accept the model in its initial specification and we turn to the interpretation of the estimated parameters to check its consistency with the hypotheses of the research. We begin by validating hypotheses for direct causal links before considering later hypotheses about indirect causal links and moderating effects.



Table 6: Adjustment of the structural model

Part of variance explained								
FORMAOS 83%			STANDOS 72%		CENTROS 84%		GLOBPERF 76%	
Adjustment indices								
$\chi^2$	ddl	$\chi^2/ddl$	GFI	AGFI	RMR	RMSEA	NFI	CFI
225,986	88	2,56	0,98	0,83	0,068	0,059	0,89	0,91
Thresholds								
-	-	<2 voir <5	>0,9	>0,8	→ 0	<0,08	>0,9	>0,9

### 5.2 Testing of direct effect of the organizational structure on the adoption of strategic management (H1)

The results of causality analysis show that H1 is rejected as the three sub-hypotheses (H1.1, H1.2, and H1.3) are all rejected (see Table 7). Indeed, each dimension "formalization", "standardization", or "centralization" has no significant effect on the adoption of strategic management. As shown in Table 7, first, the direct effect of FORMAOS on SM is estimated with structural effect value of -0.013 with low Student's t (C.R = -0.429<1.96). The probability of being wrong in admitting H1.1 is 66.8% (p = 0.668). This threshold is widely greater than 5%, per consequent the hypothesis H1.1 is rejected. Second, the direct effect of STANDOS on SM is estimated with structural effect value of -0.069 with low Student's t (C.R = -0.992<1.96). The probability of being wrong in admitting H1.2 is 32.1% (p = 0.321). This threshold is widely greater than 5%, per consequent the hypothesis H1.2 is rejected. Third, the direct effect of CENTROS on SM is estimated with structural effect value of -0.148 with low Student's t (C.R = -0.867<1.96). The probability of being wrong in admitting H1.3 is 8.1% (p = 0.081). This threshold is greater than 5%, per consequent the hypothesis H1.3 is rejected.

Table 7: Testing the direct effect of the organizational structure on the strategic management

			Standardized regression coefficient	S.E	C.R	P	Significance
SM	←	FORMAOS	-0,013	0,030	-0,429	0,668	NS
SM	←	STANDOS	-0,069	0,070	-0,992	0,321	NS
SM	←	CENTROS	-0,148	0,062	-0,867	0,081	NS

### 5.3 Testing of moderating effect of the organizational structure on the relationship between strategic management and global performance (H2)

Following the application of the approach Ping (1995), testing the moderating effects of the three dimensions of the organizational structure on the relationship between strategic management and global performance are summarized in Table 8. The results show the absence of moderating effect of different dimensions of the organizational structure in the relationship between strategic management and global performance. Indeed, on the one hand, each dimension "formalization", "standardization" and "Centralization" has no effect on the global performance ( $\gamma = -0.071$ , Student's  $t = -0.897$ ), ( $\gamma = -0.152$ , Student's  $t = -1.931$ ), ( $\gamma = -0.081$ ; Student's  $t = -1.078$ ). Only the strategic management has a positive effect on the global performance ( $\gamma = 0.187$ , Student's  $t = 2.582$ ). On the other hand, the products (strategic management x formalization) (strategic management x standardization) and (strategic management x centralization) does not appear to have a significant effect ( $\gamma = -0.021$ , Student's  $t = -0.507$ ), ( $\gamma = -0.051$ ; Student's  $t = -0.258$ ), ( $\gamma = -0.138$ , Student's  $t = -0.702$ ). The coefficient of determination for the global performance is equal to 41.78%. It is considered good. These results show that the dimensions "formalization", "standardization" and "centralization" have no direct or indirect effects on the global performance. It is only the strategic management which explains the global performance. That's when all the sub-hypotheses H2.1, H2.2, and H2.3 are rejected, and therefore H2 is rejected.

Table 8: Moderator effect of the organizational structure

Dependent variable	Independent and moderating variables, and interaction effects	Regression coefficients	Student's t-test	Significance
GLOBPERF (Adjusted $R^2$ 41,78%) =	SM	0,187	2,582	S
	FORMAOS	-0,071	-0,897	NS
	SM x FORMAOS	-0,021	-0,507	NS
	STANDOS	-0,152	-1,931	NS
	SM x STANDOS	-0,051	-0,258	NS
	CENTROS	-0,081	-1,078	NS
	SM x CENTROS	-0,138	-0,702	NS

## 6. DISCUSSION AND IMPLICATIONS

This research adopted an explanatory framework for the adoption of strategic management and its contribution to the global performance by taking into consideration a moderator effect of organizational structure. We found no effect nor direct or indirect of organizational structure on the strategic management and global performance.

First, each of the dimensions of organizational structure (formalization, standardization, and centralization) does not explain the adoption of strategic management. This means that the process of strategic decision is not predetermined by the organizational structure. It does not take place within the framework of existing structures and procedures. The strategic management can be adopted regardless of the organizational form of the enterprise: formalized, centralized or standardized. The participation of individuals of non-equivalent hierarchical status in strategy formulation is outside the existing organizational structure, but in its own structures or units for strategy formulation. Therefore, the role of the organizational structure is only limited to the implementation of the strategy.

Second, results do not support a moderator effect of organizational structure on the relationship between strategic management and global performance. Strategic management does not explain the variation of the global performance for given organizational structure attribute (formalization, standardization, and centralization). On the one hand, this result is explained by the absence of effects previously observed between each of the dimensions of organizational structure (formalization, standardization, and centralization) with strategic management. On the other hand, results show that only strategic management has a direct effect on the global performance. In this case, it is possible that the strategies developed by the company, which are the product of strategic management, are winning strategies. Their creative or realistic kind could be the causes of global performance, whether the organizational structure is formalized, standardized or centralized.

## 7. CONCLUSION

Our study sought to shed light on the strategic management practices of SMEs in testing its impact on the global performance, while taking into account the moderating effect of the

organizational structure. The findings show that the adoption of strategic management is not influenced by the three dimensions of the organizational structure: formalization, standardization, and centralization. Organizational structure is viewed as something separate from strategic management and per consequent strategic management can be adopted whatever the organizational structure. The findings show also the absence of the moderator effect of organizational structure on the relationship between strategic management and global performance. The success of strategy is not depending on organizational structure, but it can be realized when the organizational structure is formalized, standardized or centralized. Thus, the success of the strategy that materialized by increasing the global performance can guarantee the successful of strategy implementation. The role of managers and employees in strategy implementation is builded upon prior involvement in strategy formulation activities. Strategists' genuine personal commitment to implementation is a necessary and powerful motivational force for managers and employees. Implementation problems can be resolved because of this participation of higher middle and lower level managers in strategic management. Therefore, it is essential that individuals of non-equivalent hierarchical status be involved as much as possible in strategy formulation activities. Of equal importance, executives should be involved as much as possible in strategy formulation activities.

Therefore, our research contributes to address the lack of research presented at this level and to enrich and deepen our understanding of the problem studied, it has some limitations. The first limitation concerns the nature of the measures used to understand the variables in the conceptual model. In fact, we used subjective measures by which the respondent who is the entrepreneur himself evaluates the behavior of its business and reported in the questionnaire. There may be a gap between what is said and reality, linked to the risk of bias affecting the desirability responses provided by the participants in our survey. That is why it would be desirable to re-test our research model using objective measures and subsequently capture the variation between results from subjective measures and those from objective measures. The second limitation concerns the external validity of this research. Indeed, although the sample was carefully taken to be representative of the population, it is not possible to generalize the findings of this research on all Tunisian companies involved in the upgrading program, and this because of the absence of the three sectors of the final sample (LFI, CHI, and MCCGI). Therefore, these findings can be

generalized only to the four sectors surveyed (AFI, VI, MI, and TCI). It would therefore be very useful to repeat this research, by integrating the three areas that are lacking.

These limitations represent opportunities to advance in our efforts to understand the relationship between strategic management and global performance. On the whole, our results are informative and encouraging, and we hope they will stimulate further research at the interface of strategic management and global performance. The first avenue for future research that may be proposed regarding improving the explanation of the adoption of strategic management. In fact, our conceptual model integrates a single explanatory factor that is the organizational structure. To improve the explanation of this behavior, it would be interesting to enrich our validated model by incorporating other causal variables such as the skills of the entrepreneur and the environment, which, according to several researchers, to determine the behavior and development of companies. The second avenue for future research concerns the external validity of this research. Indeed, it should, in the context of further work to re-test our model in different contexts, to check whether our results are generalizable or not. Thus, the use as research field of international companies operating in Tunisia or public companies would conclude on the generalizability of our results. The third promising avenue of research relates to the methodology. It is to study the explanatory framework of strategic management using a comparative approach between firms that adopt strategic management and those that do not adopt. This approach would deepen the understanding of the adoption of the practice of strategic management, and to identify other explanatory factors. The fourth line of research concerns the participatory approach in strategy formulation. Indeed, the validated model does not specify the process or the process adopted by companies for the participation of hierarchical levels in strategy formulation. Issues such as the skills of participants, number of participants, selection of participants, conditions of participation, ... are required. Thus our research will stimulate reflection on all these points, followed by empirical investigations to measure their impact on the practice of strategic management, and therefore improve our understanding of the contribution of strategic management to the global performance.

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