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RESEARCH ARTICLE

Strategic management practices in Tunisian SMEs involved in the upgrading program

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Abstract

This paper aims to analyze the level of adoption of strategic management in Tunisian companies involved in the program upgrading. It sheds the light on those who adopt strategic management and those that do not. The study is based on a survey measuring the degree of adoption of strategic management. Empirical data were obtained using a questionnaire administered to a representative sample of 276 Tunisian companies. The analysis was performed by an ascending hierarchical classification method using the "Two-Step Cluster" SPSS 18.0. The results showed that strategic management is an undeniable reality. Participation in the construction of strategic choices is recognized and discussed between individuals of different hierarchical levels in companies surveyed.

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1. Introduction

The performance of the company has never ceased to raise questions and provoke discussions on both academia and professional world. Research on this issue sought primarily to identify success factors or causes of failures. In general, all these studies had the goal of finding the right style of management that contribute to the growth and development of the company. Most submissions argued that the causes of failure of enterprises, especially SMEs, are direct results of lacking a business strategy. They are more concerned with short-term results rather than long-term results or goals. Very often the day-to-day problems and ignorance of the environment trump any strategic thinking. However, thanks to the work of famous scientists like Alfred Chandler, Igor Ansoff, Peter Drucker, Michael Porter and Henry Mintzberg, the concept of corporate strategy has become central in the organization and management of the company in meeting better performance.

Therefore, many researchers and practitioners have contributed to approach the understanding of the concept of corporate strategy by offering various theoretical perspectives, which is a central discipline in management science. This has led to the emergence of the concept of strategic planning, development of the first source of formal models of strategic thinking and subsequently multiple universal methodologies in strategic analysis based on a large number of quantitative variables (Allouche and Schmidt, 1995). The companies then focused on strategic planning in an organized process of developing goals and strategies (Steiner, 1969; Avenier, 1988; Martinet et al, 1995). Being very popular in large enterprises, strategic planning takes place in two stages: the first one is devoted to strategy formulation, and the second one is concerned with implementation. The formulation phase is entrusted to the strategists of the company represented by the Branch assisted by planners, while other members of the company are involved in the phase of implementation.

The oil shock of 1973 and the ensuing economic crisis have revealed the advent of the concept of strategic management to address gaps and overcome the limitations denounced strategic planning of becoming too rigid,

centralized while the environment requires making strategic choices more continuous and more decentralized. It refers to the need for broader participation of stakeholders in the company to strategic thinking by the involvement of operational and strategic levels in the company. Strategic management emphasizes on the inseparability of strategy formulation and implementation. Opposed to the joint strategic planning between the formulation and implementation of this strategy it marks the integration of business in strategic thinking as well (Jaoua, 2002).

Currently, the debate remains open and follows the line of previous work, but with pressing much more new challenges. Indeed, globalization, technological revolutions in the field of information, new economic, social and environmental requirements increase the direction towards strategic management. In this context, the strategic management determines the success of a business performance. Companies are all confronted with the need for ongoing strategic monitoring to support sustainable competition. Strategic management is then used mainly in large companies. SMEs are beginning to benefit as well, however, a more application of strategic management is still vital.

This emphasizes on strategic management challenges on any business and more specifically Tunisian companies which in recent years are facing increased competitiveness. This is from the accession of Tunisia to the WTO and the signing of the free trade agreement with the European Union in 1995, the issue of international competition and survival of the company is more to be detailed. Tunisian companies 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 insofar as this era of protectionism strategy concept has no meaning at least for the majority of Tunisian companies, while today it has the full sense of being the guarantor of its competitiveness (Said, 2000; Chaker, 2002; Sraïri, 2003; Lassoued, 2003). This finding raises questions about the level of importance given by Tunisian companies to strategic management, and therefore understands the reality of strategic management in the Tunisian context. Consequently, the objective of this article is to identify and examine the similarities and distinctions between Tunisian companies in the adoption of strategic management.

2. Theoretical background

Since the 50s, under the impetus of the most influential pioneers like Alfred Chandler, Philip Selznick, Igor Ansoff, and Peter Drucker who have asserted the concept of strategic management being responsible for providing new dimensions to strategic planning. Strategic management is concerned with providing an adequate response to strategic issues in a conceptual and methodological framework to take into account the increased complexity and turbulence of the environment, beyond the limits and shortcomings of strategic planning. In addition it reconciles technician and behavioral approaches and, more generally, re-articulate strategy and management itself. It has evolved considerably in both its practical and academic aspect, as one of the most important concepts of management sciences (Avenier, 1988; Allouche and Schmidt 1995; Mintzberg et al, 1999).

Several models of strategic management have grown from originally based on the observation of large multinational research. Michael Porter of Harvard Business School, and the Boston Consulting Group, McKinsey, Arthur D. Little and many others, have developed a series of models, matrices and analysis tools that work within the structure, size and characteristics of large companies. Although strategic management has been the scope of large companies, still small and medium businesses are beginning to benefit, too. This evolution of the concept is explained by the fact that the role of strategic management in helping companies, both large and SMEs, to develop a competitive advantage is undeniable according to several authors (Ghoshal and Bartlett, 1990; Hart and Banbury, 1994, Powell, 1992). Indeed, strategic management should facilitate the company's growth and enable it to improve its performance and competitiveness (O'Regan and Ghobadian, 2005; Porter, 1996). In the case of SMEs several studies have shown that SMEs using thoughtful strategies have better results than those who did not (Berman et al, 1999; Kargar, 1996; Naffziger and Mueller, 1999). The essence of strategy development for SMEs is therefore to give a direction and a general orientation to the company so that it can achieve its vision and mission. The adoption of a clear strategic growth path then allows SMEs to ensure consistency, compatibility and strategic continuity changes incurred by the company. However, the limited financial and human resources, their vulnerable responsiveness to market fluctuations affect the orientation of SMEs to strategic management. Indeed, the companies become more than ever open to the outside, forcing leaders to show strategies to find a balance between internal and external factors.

However, despite the importance for the success of SMEs, reading the literature shows that studies on strategic management have mostly been developed in the context of large firms (Salavou and Lioukas, 2003). Implications for SMEs are often cited in the margin because of its specificity, as indicated by Etrillard (2004, p 67): "SMEs and owner-managers were often excluded from strategic analysis on behalf of the specificity of SMEs". Differences compared to large companies necessitate specific research on this type of business (Hausman, 2005; O'Regan et al, 2006). Until now, most studies of SMEs are more focused on the factors that contribute to their survival, such as the financing of their activities, rather than on understanding processes of growth and development of competitive sustainable advantages (O'Regan et al, 2006; Storey, 1994). However, SMEs are expected to be directly involved in the strategic management, even if it is a business of small and medium size category. It is part of the reality of any business regardless of its size. Consequently, it is important to focus on the application of this concept of strategic management by SMEs.

Although the term strategic management has been advanced for the first time in the literature, researchers have tackled the term strategic planning as the model used at that time to describe new methods of planning in the company, to replace the traditional methods, developed in the context paying little attention to the acceleration of change, open markets, and rising uncertainty. At that time, strategic planning has exerted a great fascination on business leaders as researchers or consultants. The definitions of strategic planning are very abundant, but the authors agree to consider it as an analytical process of the development and shaping of objectives and strategies, and the result is a plan (Ansoff, 1971; Anthony, 1965, Steiner, 1969; Ackoff, 1970; Andrews, 1971; Chandler, 1962; Martinet, 1975; Mintzberg, 1985). Three outcomes are recognized from the strategic planning by these authors, they are: adapting the company to its environment, assessing the impact of changes on business decisions, and developing a spirit of learning in the company.

Since its introduction in the early 50s, the concept of strategic planning was accompanied by multiple methodologies of strategic analysis based on a large number of quantitative variables (Allouche and Schmidt, 1995). The best known of the initial strategic planning model is the Harvard Business School called LCAG (Learned, Christensen, Andrews, and Guth) or SWOT. This model as released was made more concrete by large firms i.e. American Council, including the Boston Consulting Group, which offer a very strict method to analyze situations competitiveness. Subsequently, other large consulting firms, such as Arthur D. Little or MacKinsey resumed using close methods, making them more qualitative (Chevallier, 1990). This has led to a profusion initiated by practitioners and researchers tools in business schools, whose popularity is due both to their simplicity, but also the strength and sophistication of the principles. According to Joffre and Koenig (1981), they enrich each other and far from excluding each other, they rather complement each other.

The evolutionary models of strategic planning, known since the 80s, are characterized by four basic properties (Ramanantsoa, 1984; Desreumaux, 1993); first, they are typically mechanical and formalized under the rational mind. They proceed by a series of logical sequences, ordered and involving formal analysis. Second, they emphasize the rigor and systematic nature. They evaluate options using a quantitative and compensatory exhaustive analysis of their items based on one or more dimensions specified previously. Third, they rely primarily or solely on quantitative data. They assume that it is possible to identify and quantify all relevant to their absolute or relative impact factors. Fourth, they follow analytical reasoning which refers to reasoning closed down within the same registers for fixed variables.

From the oil shock of 1973 and the ensuing crisis, these characteristics have revealed their weakness and have been challenged by several authors. Since that time, strategic planning has been fed by countless publications and debates, sometimes turning to the controversy between two great authors Mintzberg (1990) and Ansoff (1991). Martinet (1988, 2001), from a historical overview showed that strategic planning has been fads and rhetorical competitions that have shaken consultants, contractors and academics. Strokes that characterize balance are indicative of the great dilemmas and contradictions that sometimes management faces: feed forward / feedback, reflection / internal action / external analysis / imagination, simplification / complexity.

To address the limitations denouncing strategic planning, several authors have proposed abandonment for a more dynamic approach and incorporating dimensions other than the only feed forward. Early researchers who have expressed this concern were Ansoff et al (1976) through their work "From Strategic Planning to Strategic Management". The need to plan fades therefore was faced with the need to confront uncertainty, turbulence and

change. Managerial response then used strategic proactivity presented by the term strategic management that was needed since the 70s. The tendency then is to consider the strategy as the case of all members of the company by putting emphasis on the coupling between strategy and ongoing management that we are trying to reintegrate into the strategic management (Hussey, 1984; Capon et al, 1990; Spulber, 2005; Grundy and King, 1992; Langley, 1988; Martinet, 1994).

Literature perceives strategic management as the evolutionary development of strategic planning (Ghoshal and Bartlett, 1990; Hart and Banbury, 1994; Genelot, 1994). In the sense of Martinet and Thiétart (2001), strategic planning is saved by being subsumed in the broader and vaguer strategic management field. In this regard, Montebello et al (1975) argue that strategic planning gradually changes strategic management. However planning retains a fundamental role and is only one of the aspects of strategic management. For these authors, strategic management is a much broader range, beyond purely technical, economic, informational concepts, underlying strategic planning. This set includes psychosocial factors and socio-political elements in internal or external relations of the organization and the level of decisions and actions.

In this perspective, Ansoff et al (1976) believe that strategic planning is only part of a larger project that is strategic management. It takes into account both technical and economic variables of psychological or political factors. Martinet (1984) shares the same opinion since he thinks that social, political and cultural dimensions of the company cannot be dismissed out of strategy. In the same spirit, Horovitz (1984) differentiates the strategic management from strategic planning by the fact that it attaches considerable importance to the analysis tools, while the first is formed and exposed through social processes. In other words, the social dimension, ignored by strategic planning, presents itself as a catalyst for strategic management.

Ansoff et al (1976) add other reasons for the passage of strategic planning to strategic management by redefining strategic planning as a strategic management element to emphasize the fact that on one hand, strategy is not a process that should be limited to fit into a annual planning cycle but it is a continuous and ongoing process. On the other hand, the strategy is not just to respond to environmental changes, but should create a more favorable and competitive environment. On such point insists Marmuse (1992) who indicates that: "The strategic management is an art that goes beyond quantitative approaches to forecasting (strategic planning) or deterministic approaches in portfolio management. A company which has built a destiny where the preference schemes have a prominent place will relativity become the centerpiece of a deep reflection on the possible futures where the strategic direction becomes leaders' drivers which can be expressed in an ambitious development project "(Marmuse, 1992. P.77).

Gluck and Jauch (1984) see strategic management as a logical evolution of management systems. They believe that strategic management is the fourth step in the evolution and development of the system of formal planning. It also appears in the spirit of Jauch and Glueck (1990), where the term "strategic planning" and "strategic management" seem to have the same meaning. In their strategic planning process, it integrates strategists' elements of strategic management, which, in the context of SMEs, is of particular interest given the role occupied by the contractor in the management of its business

On a different note, Avenier (1988) connects the strategic planning and strategic management concepts at the basis of strategic thinking process. Processes have the same purpose but they differ in their content, procedures and in terms of results depending on whether reference is made to the notion of strategic planning and strategic management. Table 1 highlights existing differences between strategic planning and strategic management, depending on the point of view of Marie -José Avenier (1988).

Since its introduction, the concept of strategic management played a vital role in the company and it is not possible to discuss development and survival of businesses without including this concept. Giving a definition of strategic management is not without difficulties insofar as researchers do not agree on a universally accepted definition due to the interchangeability between 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 (Martinet, 1992). According to Koenig (1993) this interchangeability may lead to negative consequences to the extent that it becomes a generator of misunderstandings and generally contradictory results, which translates into reserves for reproducibility and degree of generalization. Indeed, for many authors, strategic management refers to a field of study of management sciences. We can list multiple books or articles that consider strategic management as a field of research that

represent multiple realities. Contrary to this general sense, specialists in this field provide considerable details, considering the strategic management as a field of application that integrates specific dimensions.

According to Ansoff (1971), the founder of this concept, strategic management is to: develop strategies, organizing skills of the company and organize the implementation of these strategies and skills. It explores how entrepreneurs or more generally leaders of organizations take the major decisions that affect the long- term structure of the organization, competitive market behavior, adaptation to legal and regulatory constraints...

Thietart (1984) sees strategic management as the balance between the economic, political and organizational situation of the business dimensions. The economic dimension refers to the traditional rationality (calculation of profitability, balance sheet benefits / costs). The political dimension refers to the games and strategies of actors (individual and group strategies). The organizational dimension refers to the formal structures and procedures (internal operating rules). It describes the different possible combinations of these three dimensions and accommodates one that best suits the environment of the organization. The ideal combination in the search for coherence between the internal capabilities of the organization and its environment is called strategic management.

For Martinet (1988), strategic management retains the triad structures behavior representations as a model of the organization. For Jauch and Glueck "Strategic management is a set of decisions and actions that lead to the development of an effective strategy or strategies that help achieve business goals. The strategic management process is the way in which policy makers determine the objectives and make strategic decisions "(Jauch and Glueck, 1990, p.9). These decisions are the means to achieve goals. These focus on defining the business sector, products and markets to serve the functions to be performed and policies necessary for the implementation of these decisions in order to achieve the objectives.

In the same line, Mahé de Boislandelle (1998) states that strategic management is to define strategic guidelines and their implementation. Basic choices, expressed in terms of products, markets and technology are defined taking into account all the areas that will be directly affected in the company and the environment. It is specifically human, economic, organizational and possibly political and societal dimensions. Strategic management is also concerned with the potential adaptability of the company promoting the development of skills and capacity for innovation. This is the same point of view of Brechet et al (1997): "Strategic management is concerned with the design, preparation and conduct of collective action ... so is concerned with internal and external aspects of positioning, process strategy formation and implementation ..." (Brechet et al, 1997, p. 36). For Kalika and Orsoni (2006), is the set of tasks of general management, which aim to secure the company's future development paths while giving the organizational means to achieve it.

These various contributions highlight a significant dimension of strategic management. 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. Indeed, strategies can be imposed by the environment, which may condition the management. They can also be an expression of finalization of management as areas for development clearly displayed. 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 conduct. Strategic management is so much a matter of formulation of implementation strategies. It is a process by which strategists formulate, implement and monitor corporate strategies (Coulter, 2002; Hill and Jones, 1992). Thus, strategic management is a process that helps drive business strategies to better focus the efforts of organizational members to the goals and desired goals.

A fundamental contribution to strategic management is that of Avenier (1988) which defines 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 implementation strategies developed. Several definitions support this tendency to members of the company at the heart of strategy formulation. By way of illustration, 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 branch (Senge, 1990). In this perspective, strategic management is now conceived as the integration of strategy into daily business practices. Mixed with management, strategy involves anchoring it in the daily activity of any business. Thus, several authors agree that we are in a period of rapid changes in the strategy development process, which passes a process led by the reduced number of players leaving the company (the strategic core), an approach to integrating much more operational and functional managers. Mintzberg (1994) while describing the dilemma of strategic planning asserts that the strategy is a creation

that is more an invention of calculus. Because even if the leaders had the best possible information about their business and their markets, formal planning remains doomed. Thiétart and Bergadaà (1990) express a deep conviction that the analysis is too often the case of 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 strategy rather than treating them separately, and this can be achieved through the integration of members of the company in strategic thinking. It allows the future development of the company through the twin phases of development and implementation. It stands out in relation to strategic planning where the two phases of formulation and implementation of the strategy are made separately. Attention should be directed toward the conditions under which business strategy is shaped, as stated by Koenig (1990) whereas the purpose of strategic management is about less control on the formulation of the strategic choices that facilitate, space and time organization when implementing successful strategies. Koenig (1990) defines it as “processes which function is to ensure the competitiveness, safety and legitimacy of an organization or as a collective response system”. Exceeding the simple formulation of choice (function traditionally devoted to strategic analysis), strategic management seeks to integrate emerging phenomena to deliberate projects concerned with the implementation of intentions. Strategic management is expected to address organizational problems (Koenig, 1996, p. 531). In reality, the strategic relationship between the ruling sphere and land often goes wrong, because the effectiveness of strategic management depends not only on the choice of strategy and structure made at the top, it also requires the commitment of field managers and collaboration.

Many researchers have attempted to explain the difficulties encountered in the process of developing a strategy exclusively oriented towards the external development and in the implementation of this strategic planning. The results showed that the problem is not in the strategic planning process itself, but in the lack of alignment or consistency between internal organizational characteristics and the choice of external development.

Klarsfeld and Oiry (2003) suggest that the two approaches are complementary and not mutually exclusive of each other. These guidelines have become inseparable and complementary. The definition of the strategy must integrate different perspectives, with different weights according to the vagaries it faces. Indeed, a company that monitors the elements of its environment must also seek a better allocation of its resources to improve its results.

In conclusion, much like Avenier (1988), we define strategic management as a decentralized strategy development process of the company, marking the link between strategy formulation and implementation by the participation of organizational actors of different hierarchical levels in strategic thinking. Therefore this concept is based on and refers to two basic concepts:

- 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

3. Methodological framework

This framework refers to the description of the parent population, the sample design, sampling, data collection technique, the operationalization of the concept of strategic management, and the measurement method.

3.1. Research population

The population of the research survey consists of all Tunisian companies engaged in a modernization program called “Upgrade Program”. This choice is motivated by two reasons. First, these companies should match the desired profile for the program which requires any company wishing to participate, to formulate strategies. Second, 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 firms on strategy formulation. Although some research (Said, 2000; Chaker, 2002; Srairi, 2003; Lassoued, 2003) can guide us in the choice of the population, still the problem of sample representativeness will not be solved. To define our population, the frame that best meets the needs of the investigation is the Office Upgrade

(<http://www.pmn.nat.tn/fr/LISTRAS.asp>). In total, our research population consists of 2,535 SMEs (see Table 2). According to the classification adopted by the PMN, the SME is a company with a total investment of less than 3 millions TD.

3.2. Research sample

For sampling purposes, we proceeded to a stratified random sampling. The population was broken down into seven strata corresponding to industrial sectors. To calculate the sample size, we applied the Act Bernoulli detailed below:

$$n = \frac{(1.96^2 \times N)}{1.96^2 + L^2 \times (N-1)}$$

n: sample size
N: population size
L: wide range expressing the margin of error [quantitative surveys generally agree on an error above and below the value between 5% and 6% profit (or a range between 10% and 12% %)]

Applying this formula to a value of L equal to 10% and a value of N equal to 2535 will give a size of 334 sample units. We must study 341 usable questionnaires for a correct representation of the total population. However, because of the absolute refusal or incomplete or unsuccessful promises of questionnaires, we found it useful to exclude from our sample firms belonging to sectors ICC, ICH, and IMCCV. The final study sample is then composed of 276 companies belonging to only four sectors: AFI, VI, MEI, and TCI (see Table 3).

3.3. Data collection

To achieve our quantitative analysis, we decided to develop a questionnaire as a technique for data collection for three reasons. First, the questionnaire is consistent with the use of our research design, which requires quantitative rather than qualitative data. Secondly, the questionnaire can reach several respondents needed to perform complex statistical analysis. Third, this technique of data collection is inexpensive and ensures the confidentiality of respondents, allowing them to express themselves without fear. Our choice was a more economic self-administered questionnaire.

3.4. Measurement of strategic management

With reference to the definition of strategic management that we have adopted, we use two key variables that constitute its essence existence of strategy and strategic thinking shared between individuals of non-equivalent hierarchical status. In this perspective, we asked two closed questions on the existence of global strategy and functional strategies. For the second part, it is essential to be clear about the content of the term participation of individuals from different hierarchical levels in the strategy formulation. Indeed, participation is nowadays a buzzword and terms used to describe it have evolved. Commonly, "*participate in the sense of taking part action do together, to act together, to cooperate in an action requiring multiple actors*" (Mahé de Boislandelle, 1998, p. 314). The concept is usually associated with the concept of participative management which refers to making shared decisions between individuals of non-equivalent hierarchical levels (Mahé de Boislandelle, 1998; Mitchell, 1973). In an organization, when it comes to participation it refers to conferring responsibility to staff. Locke and Schweiger (1979) identify two conditions necessary for participation: First, there must be at least two people involved in the process. Second, it must be an element that is absolutely shared between the people involved in the process. In this context, the decision does not necessarily mean a group of subordinates, a supervisor and a subordinate are sufficient. Moreover, sharing the decision-making does not require equal distribution; participation exists as long as there is a shared influence.

In this context, participation is considered by most authors as a multidimensional process that involves a progressive and complex logic (Drehmer et al, 2000). Literature presents several models with different definitions and dimensions of the concept of participation in the form of continuum in decision making (Locke and Schweiger, 1979; Heller et al, 1988; Laz and Savage, 1996). These models differ in some aspects, but they all agree on the stage of problem solving. In the light of these models, participation appears to be "a process by which employees share the impact with the organization that employs them" (Trottier, 2003, p. 79). Participation can then vary from one stage

to another in the process of decision making, either at identifying the problem, generating solutions, evaluating solutions and the selection of solution. In this perspective, the model is interesting because it relates the degree of participation and activities of different organizational levels to include participation in the decision (Atamer and Calori, 1989). According to these authors, participation may cover all or part of the following:

- Information: the decision is made by the leader. Subordinates are informed of the reasons for choosing the leader after the decision
- Consultation: the decision is taken by the leader after consulting one or more subordinate
- Introduction: the decision is the result of a consensus between the ruling and resulting participation of one or more subordinates.

Based on this classification, respondents were asked to indicate the existence of global strategy and functional strategies in 4 terms [Yes (written), Yes (unwritten), No, No (but intended)]. In the case of the existence of strategies, respondents were asked to specify the nature of the actors categories (functional managers , senior managers, middle managers, administrative staff, workers, external experts) in relation to the three dimensions of participation (information, consultation , initiation).

3.5. Method of measuring the degree of adoption of strategic management

In light of the objective assigned to this research, it is necessary to perform a cluster analysis to identify business classes according to their degree of adoption of strategic management. It is a statistical technique that aims to grouping a set of objects in such a way that objects in the same group (called a cluster) are more similar (in some sense or another) to each other than to those in other groups (clusters). To build these subgroups, it is necessary to identify objects of interest (variables or individuals). To undertake the cluster analysis, a classification algorithm must be selected to determine the number of classes. These methods classify individuals according to gradual similarities in their responses to selected variables.

According to Evrard et al (2003) , several types of classification algorithms exist in the literature which differ based on the following factors : the type of data that process attributes (digital, category , taxonomic , ...) the ability to process a large data set, the ability to handle high-dimensional data , the complexity of the algorithm (computation time) , the dependence of the order of the incoming data , the dependence of presets by users. Traditionally, methods of classification are divided into two main categories: hierarchical and non- hierarchical methods or partitioning methods depending on how classes are built (Karypis et al, 1999; Evrard et al, 2003).

Hierarchical methods gradually build classes. They use the construction of a classification tree showing the passage of n individuals in total group by a succession of groupings. For a given level of precision, two individuals can be confused in the same group, whereas in a higher level of accuracy, they will be distinguished and belonging to two different subgroups. They are divided into two types.

The hierarchical ascending classification (HAC) is to rank a finite number of objects. This approach can be summarized in two steps. First, measure the similarities between individuals through a measure of proximity (distance index) to form classes. Second, assess the relative proximity of the classes themselves, to group them into classes of classes, and thus replace the original set with a set that is hierarchically structured.

The descending hierarchical classification: can be useful, especially when storage of dichotomous or on purely pragmatic aims. Unlike ascending buildings, down methods proceed by successive dichotomies or divisions of a class at each stage of the process.

Non-hierarchical partitioning methods produce one partition of a data structure instead of classes. They lead to the decomposition of the set of all individuals in m disjoint sets or equivalence classes, and the number m of classes is fixed. This method overcomes the limitations of the hierarchical approach. According to Evrard et al (2003) there are two major limitations: From a theoretical point of view, the hierarchical classification is used in the process of looking for a succession of sub - optimal and not in search of a global optimum. From a practical point of view, the hierarchical classification involves a high computation time (number of iterations) due to the number of objects to be classified which can be important and needs a large storage volume data. However, hierarchical methods provide

more information than partitioning methods, since hierarchy induces multiple partitions; however they are longer and more difficult to interpret (Karypis et al, 1999).

Faced with this variety of methods, we chose to perform a hierarchical cluster analysis using the recently developed by Chiu et al (2001), "Two-Step Cluster" method, to form natural groupings of individuals in a data matrix. First, this method can be natural groupings of individuals within a data matrix. Second, it uses an algorithm that simultaneously processes digital and nominal data (which is our case), and automatically determines the optimal number of sub-groups using a Bayesian Information Criterion (BIC) or Akaike Information Criterion (AIC). Third, it turns out that it is the most valid because it has no bias introduced by the user (Kayri, 2007).

The "Cluster Two-Step " method uses a hierarchical classification clumping in which individual observations are successively combined to form classes whose centers are very remote . This algorithm is designed to classify large numbers of observations. It analyzes the data once to find centers classifications and again to assign memberships classes.

Thus, to classify firms in our sample according to the degree of adoption of strategic management, we present a classification based on three dimensions: existence of strategies (yes written or unwritten but yes, no, or not yet considered), participation organizational actors at different hierarchical levels in the formulation of strategies and forms of participation. The first dimension was measured by two questions. The second and the third dimension is measured by one question. The second variable refers to the professional categories of organizational actors (functional managers, senior managers, middle managers, administrative staff, workers, external experts). The third variable refers to the forms of participation of these actors (Information, Consultation Initiation, Information / Consultation, Information / Initiation, Consultation / Initiation, Information / Consultation / Initiation).

4. Presentation and discussion of results

After running a hierarchical cluster analysis using the method of Two-Step Cluster using SPSS 18.0 We used the likelihood distance and the optimization criterion BIC (Bayesian Information Criterion) as groupings criteria. The results of the cluster analysis "cluster two-step " performed after the inclusion of the selected three variables gave the percentage of belonging to each of the classes of all the companies (Figure 1). Only two classes were identified from the relationship initially assumed. Both included companies that adopt strategic management, but in two different degrees. The class 1 called "strong adoption of strategic management" is the largest (170 companies) which represents 61.6% of the sample. The class 2 is named the "low adoption of strategic management" which is smaller (106 companies) and represents 38.4% of the sample. These two classes are distinguished by 10 criteria in order of importance, which contribute to the creation of two profiles identified. Other criteria have no contribution to the creation of different profiles, so that they do not differ. Table 4 shows the degree of importance of different criteria. It should present each of the two companies and their characteristic classes.

Table 1: Differences between strategic planning and strategic management (Avenier, 1988)

	Strategic Planning	Strategic Management
Strategic Thinking	Definitions only external strategies that is to say on business transactions with external environments	Definitions of internal and external strategies. Internal strategies for the organization, facilitation and / or the completion of the company. Can lead to revise the objectives of the company or some units to adapt to changes in their environments.
Calendar of strategic thinking	Fixed schedule (If a major unforeseen event occurs outside of a phase of strategic thinking, it will be taken into account in the next phase of strategic thinking).	Flexible schedule (If a major unforeseen event occurs outside of a phase of strategic thinking, it will take effect immediately).

Centralized or decentralized strategic thinking	Centralized (Concentrated with Branch).	Decentralized (Concentrated in the operational units with people who will be responsible for the implementation of strategies developed).
Result of strategic thinking	Action plan designed by planners who will then sell it to operational managers responsible for its implementation.	Action Plan developed by those who have to implement the plan.
Resistance	Create more resistance.	Create less resistance because they are the people who developed the Action to implement the Plan.

Table 2: Population research distributed by sector of activity

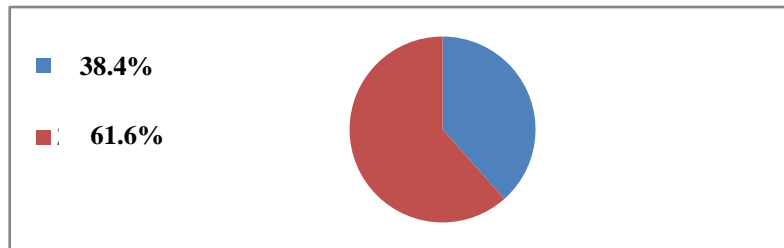
	AFI	LFI	CHI	VI	MCCGI	MEI	TCI	Total
Number of enterprises	300	183	134	329	120	326	1143	2535
Percentage	12.12%	7.24%	5.43%	13.29%	4.81%	12.25%	44.82%	100%

The abbreviations in the table are as follows:

- AFI: Agro-Food Industry
- VI: Varied Industry
- MEI: Mechanical Industry
- TCI: Textile and Clothing Industry
- LFI: Leather and Footwear Industry
- CHI: Chemical Industry
- MCCGI: Materials Construction Ceramics and Glass Industry

Table 3: Research sample

	AFI	VI	MEI	TCI	Total
Population (SME)	300 n1	329 n2	326 n3	1143 n4	2098 N
Percentage ni / N	14,30%	15,68%	15,53%	54,48%	100%
Sample (n / N = 13,16 %)	40 n1	43 n4	43 n6	150 n7	276 n
Percentage ni / n	14,49%	15,60%	15,60%	54,35%	100%



Size of the smallest class	106 (38.4%)
Size of the largest class	170 (61.6%)
Size ratio: largest class to smallest class	1.60

Figure 1: Distribution of firms Size of classes

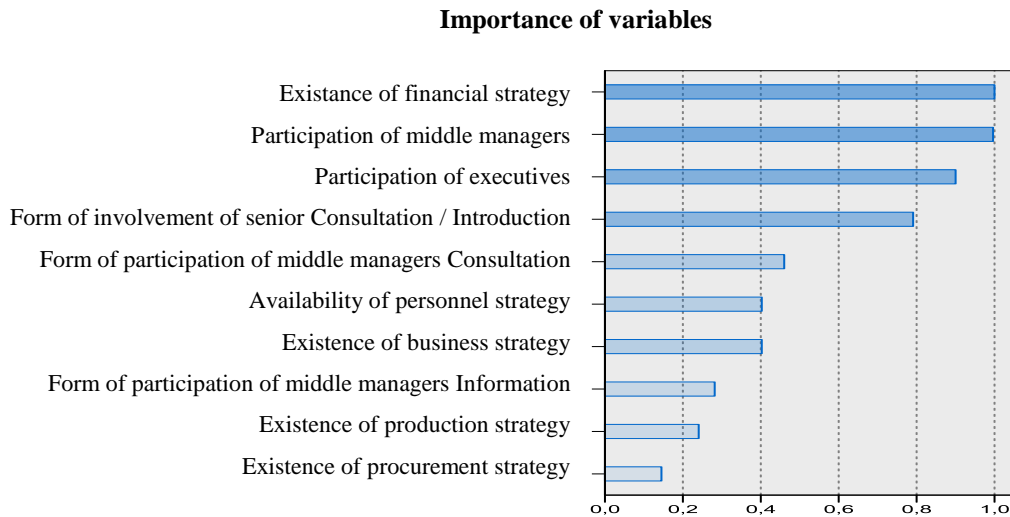


Figure 2: Criteria for distinguishing between classes according to importance of variables

Table 4: Degree of importance of the criteria

Criteria	Importance
Existence of financial strategy	1
Participation of middle managers	0,9962
Participation of executives	0,9001
Form of involvement of senior Consultation / Introduction	0,791
Form of participation of middle managers Consultation	0,4601
Availability of personnel strategy	0,4025
Existence of business strategy	0,4025
Form of participation of middle managers Information	0,2817
Existence of production strategy	0,2406
Existence of procurement strategy	0,145

The characteristics of the two classes are shown in Table 5. 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. Per consequent, 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 of 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 on 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.

Table 5: Results of the cluster analysis by the 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%

5. Conclusion

This research is a first step towards a better understanding of the place of strategic management in Tunisian companies. It aimed to determine whether the practice of strategic management is confirmed or not in Tunisian firms reality. The study was interested in a representative sample of 276 Tunisian companies engaged in the upgrading program. Cluster analysis by the method "Two-Step Cluster " was performed. The results are revealing because all firms surveyed are part of a true strategic management, in which the majority of companies have incorporated this concept through actual participation of middle managers in strategy formulation. Consultation and initiation are the watchwords in strategy formulation. Subordinates effectively contribute to the construction of strategic choices, not only the development of solutions and proposals, but also by the development of a final decision. The resulting strategies are shared between superiors and subordinates. They have the opportunity to influence the strategic choices by not only monitoring but also by the decision. Strategic management is now a top priority in the Tunisian firms. For the remaining firms, the logic of strategic management is present but its level is low. Indeed, it appears that these companies have introduced a less extensive participatory structure that is focused on the collection of information. Only superiors are involved in the process of building strategic choices.

Finally, as a synthesis of this research, it appears clearly the privileged place of strategic management in Tunisian companies; based on recursive interactions between individuals of non equivalent hierarchical levels, by questioning the divide between policymakers and implementers in the construction of strategic choices. These results open the door to new research that relates to three registers. The first refers to the factors explaining the adoption of strategic management. The second refers to the contribution of strategic management to business performance. The third focuses on the process adopted by companies for the participation of individuals from different hierarchical levels in strategy formulation. Many points suggest once again the rationale in the utility of the strategic management process to companies.

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