Cognitive Approach of Corporate Governance

A Visualization Test of Mental models with Cognitive Mapping Technique

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The idea of this paper is to determine the mental models of actors in the firm with respect to the cognitive approach of corporate governance. The use of the cognitive map to view these diagrams to show the ways of thinking and conceptualization of the cognitive approach.The paper takes a corporate governance perspective, discusses mental models. It takes also a cognitive mapping technique.
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1.Introduction

As shown Charreaux (2002), approaches a break with the paradigm contract can be grouped under the term "cognitive theories of the firm." According Charreaux, these theories include such current

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behavior (Simon, 1947, Cyert and March, 1963), evolutionary theory (Nelson and Winter, 1982), and the theory based on the resources and expertise. After briefly characterized the cognitive approach, our goal is to raise the contribution of this approach. Our goal is to identify the key concepts of the cognitive approach.

2. Literature review

2.1. Cognitive approach of corporate governance

Langlois and Foss (1999) indicate that the majority of studies related to contractual theories of the organization, focusing exclusively on the notion of information asymmetry and conflicts of interest it generates, does not offer an analysis the process of value creation. Interested only in the distribution of value, this work therefore obscure the productive dimension of building value by the company and do not give their place to levers such as competence, knowledge, the innovation and learning that appear to play an important role in research more competitive source of value creation in a sustainable manner. Cognitive theories focus particularly on creating internal knowledge from organizational learning.

The performance was more of the leader's ability to imagine, innovate, to receive new investment opportunities and act on their environment to change in its ability to restructure existing processes.

The firm is seen as a repository of knowledge, not only as a nexus of contracts. Value creation depends primarily of the identity and distinctive competencies of the latter, as well as its ability to create knowledge (Teece, Rumelt, Dosi and Winter, 1994). The cognitive approach attaches more importance to the contribution of intellectual capital in creating value. Thus, in the context of the cognitive approach to governance, the cognitive cost optimization is the main lever for value creation. Contrary to common contractual governance in the current cognitive, the problem is not that of aligning the interests of managers and providers of resources but of qualitative

coordination, alignment and patterns of cognitive models anticipation: cognitive adjustments between the various stakeholders. Charreaux (2002) then defines corporate governance as the set of mechanisms to increase the potential for value creation through learning and innovation. According Poincelot and Wegmann (2004), a cognitive perspective, governance mechanisms must enable the management to inform on how to achieve the objectives assigned to it.

Control mechanisms leaders have therefore designed to ensure the sustainability of the organization. In this context, the board plays a cognitive role when considered as a place for exchanges and discussions in which qualified directors are able to influence the management skills of the manager and where the debate can lift some disagreement about the value of the strategy. Governance mechanisms must guide the leader and allow him to make decisions that create value through innovation and organizational learning.

This aspect of governance introducing some aspects associated with the internal characteristics of the firm as "information processor", which involves cognitive patterns of interpretation. He said the role of governance is a system for monitoring possible schemes for organizing the functions of allocation of information between the various participants in the organization.

This vision includes proactive governance including the behavioral theory of the firm based on the work of Simon (1947) and Cyert and March (1963), evolutionary theory, theory of organizational learning and theories of resources and skills.

In cognitive vision of governance, the role of the board goes beyond the interests of shareholders; it is a mechanism to ensure the best possible cooperation between managers and shareholders (Charreaux, 2000).

It acts as a hierarchical body which, in addition to its role of arbiter in the rent sharing, should encourage teamwork. This representation allows the board to better understand the presence of directors as

employees, bankers and suppliers. Thus, the inside directors can not only protect their specific investments, but also provide new information to enhance value creation. The role of the board is no longer limited to monitor managers to shareholders, it also acts to protect the set of relationships that create value, preserve and enhance the productive nature of the nexus of contracts, either by providing a shared fair and adequate incentive among different partners, by providing expertise (Charreaux, 2000). The company represents a system of stakeholders aiming to create value for stakeholders. The purpose of the governance mechanisms should be to maximize the global creation of wealth by the company.

2.1 The key concepts of the cognitive approach

2.1.1. Value creation: operating skills, knowledge and organizational learning

The common cognitive theory is that value creation comes from knowledge. The source of value creation is linked to elements difficult to imitate and which provide a significant competitive advantage and sustainable. The determinants of value creation as it is spoken in the cognitive theories are some of sociological and other psychological.

The behavioral theory (behaviorist theory) gives more prominence to the psychological dimensions of value creation. Achieving the desired performance requires knowledge of the behavior of actors or groups of actors in an organization. Two assumptions underlie this theory: the rationality of individuals is limited (Simon, 1947) and the organization consists of a coalition of actors with specific objectives which is a source of differences and potential conflicts.

Accordingly, a principle of maximizing the satisfaction replaces the traditional principle of maximizing value for shareholders. The decision process is interactive and emerging and the possibility of organizational learning.

The controls in this context are intended to ensure the sustainability of the organization.

For this, the officer must complete a mission animation and mediation to help the players to coordinate. These devices must also inform the levels of contributions of different actors and so on payments possible, thus allowing a reduction of "organizational slack". To achieve these ends, the controller must measure and transmit signals external and internal, stable behavior and encourage self. Non-financial indicators (absenteeism, productivity indicator ...) learning about the behavior of each can increase the cement of the coalition.

In theories of organizational learning, competence creating value comes from the knowledge of organizational routines and especially for evolutionary theory (Nelson and Winter, 1982), knowledge of their developments. Routines are patterns of behaviors and interactions that individuals are able to use to deal with different situations that arise. The construction of these routines is the organizational learning (collective). They are usually tacit (neither codified nor transferable).

Nonaka and Takeuchi (1998) explain the creation of organizational knowledge and organizational learning to distinguish the dominant behavior (learning "how to" by observation, imitation, experience) and a predominantly cognitive ("the learning outcomes are a change in cognitive results in information processing and leads to increased knowledge or changes in patterns of interpretation. "

The learning process will involve then the "know how" and "why"). An organizational learning process involves a comprehensive behavioral and cognitive change. The plurality of non-financial indicators and their high frequency including those focused on training, the rate of turnover may be justified in theory in order to create organizational learning. The participation of other stakeholders in the knowledge of employees is also important (opinions of customers on products, services ...). Note also that the creation of organizational knowledge is initially transferring tacit knowledge

within a group, sharing of information. The nature of the information to be communicated is not dictated by the hierarchy but emerges from the communication between the groups (tacit knowledge is inherently difficult to transfer, the transfer will be primarily through dialogue and less formal way through indicators).

In evolutionary theory, the evolution of an organization due to relevant operating skills called secondary. Evolutionary theory can also be used to understand that non-financial indicators (such as other management practices, such as the ABC method) can be introduced and maintained or otherwise rapidly rejected by studying the existing organizational routines (Burns and Scapens, 2000). The Movement for Resources and Skills stems from the work of Ricardo (Arrègle, 1996) during which the concepts have been developed for pension and quasi-rents. The Ricardian rent is in the possession and use of a common strategic asset whose supply is limited and cannot be easily imitated or created. The quasi-rent is the specificity of an asset that may be worth more than a company as a competitor. These assets are difficult to imitate, difficult to substitute and exchangeable in a market. The MRC is part of broader evolutionary theories which postulate that the structural dimension of business performance is not their competitive position, but managing the evolution of their technical processes and their organizational processes.

The MRC leads therefore to refocus strategic thinking in the heart of the company in attempting to identify its scarce resources and more specifically human and organizational skills, that is to say its Intellectual Capital. The elements of Intellectual Capital are perceived as strategic resources chip, capable of giving companies a competitive advantage. MRC refers to a strategic interactionist mode of identifying the resources and skills, and to analyze the interaction between these resources and skills and environmental conditions.

2.1.2. Control modes of communication and exchange and training

In general, cognitive theories are based on emerging modes of control. These control modes are aiming to coordinate routines. It is also to promote the emergence of these secondary skills by providing detection devices and adequate analysis (concept of leading indicators) and facilitating organizational learning: promoting exchanges, communication and training. In addition to this overview, it is interesting to show that certain theories in organizational control, that is to say, theories of performance appraisal and pilot organizations, are part of the cognitive perspective. We present two approaches particularly significant. Uncertainty, the company must use other methods of control that the control of a disciplinary nature (checking that the results are up to the goals and behaviors are accordance with the requirements of managers). Modes of control refer to contractual paradigm, while the informal modes of control, through culture and self-refer to the cognitive paradigm.

2.1.3. Cognitive resources and growth opportunities

The emergence of a governance model extended to cognitive limitations of the model comes from the explanatory force (Rajan and Zingales 2000; Charreaux, 2002, 2002). This model seeks to explain the long-term success of firms and specifically why some firms are more profitable than others (Jensen and Meckling, 1976). In this traditional view of governance inherited from the seminal work of Berle and Means (1932), the value created is essentially the control over the executive. Indeed, shareholders owners delegate decision rights to their leader, they must ensure that it does not use them for its exclusive benefit or do not waste. It is therefore to limit the discretion of the officer via the internal (board of directors, audit committee, independent directors) and external mechanisms (financial market, labor market leaders, regulators). The value created from the

effectiveness of the mechanisms in place. However, as noted Charreaux, (2002), it may happen that a leader who has achieved good financial results is still crowded.

Taking the founding texts of current theories contractual, Charreaux (2002) shows that the source of the performance comes not only from the elimination of opportunistic behavior. In addition to the disciplinary aspects is the ability of management to organize production and to acquire knowledge that enables firms to be more productive. Financial resources are supplemented by cognitive resources involved in the strategic choices (Charreaux, 2002).

Shareholders, but also other creditors, provide financial and cognitive (Charreaux, 2000). The introduction of the cognitive dimension of governance emphasizes the concepts of knowledge and learning and this in an evolutionary perspective in the sense of Nelson and Winter (1982). Knowledge is an interpretation of information by individuals. In this context, information is collected, processed and interpreted and there is a real organizational learning within the firm. This learning begins with the interactions between the board and the manager and can also develop inside the firm.

Organizational learning for; the acquisition of individual skills but also the development of collective skills, the subject of many schools of thought.

There are two main types of learning; The first concerns the exploitation of existing knowledge and skills (or internal resources), in the context of relatively stable systems, while the second develops the exploration of new opportunities (or resources) in a more complex and turbulent. In the first case, learning is oriented management experience and in the second case, it is experimenting with new internal processes or to challenge existing processes in a movement of regeneratio.

In this context, the board helps the leader to develop or modify its vision (Charreaux 2002, Wirtz, 2006). The board becomes (or

becomes) a real forum for discussion and is not simply "rubber stamp" to which he is sometimes compared. In fact, the skills of directors (or shareholders), their social networks become predictors of the value created by firms. The board can also be seen as a mechanism to harmonize existing cognitive schemas in the firm and in this context, the composition of the board plays an important role. In fact, it's more diverse board is decisive rather than independence (Charreaux, 2002). In this scheme, the entrenchment of the manager is not necessarily bad for the firm, it is even necessary to promote the construction of a shared vision and create value between the leader and the rest of the stakeholders.Cognitive conflicts must be able to speak is through them that new opportunities can be built, it is however desirable to alleviate the consequences, by consensus or by the game of corporate culture.
Governance and financial governance cognitive classic not opposed but complementary (Wirtz, 2006) and where appropriate, use existing skills or explore new opportunities, one or other of the dimensions that will be more relevant another. Under this analytical framework, it is no longer conflicts of interest must be reduced and "channeling" but the cognitive conflicts. The framework proposed moving away from a governance perspective to include strict discipline, in explaining firms' long-term, preservation and exploitation of internal resources but also the exploration of new resources.

2.1.4. Cognitive levers: innovation, capabilities and specific skills

Visions shareholder and partnership adopt a vision of legal and financial governance focuses on the levers disciplinary expected to provide the distribution that maximizes the value (that is to say that minimizes agency costs): the source of value creation created is purely disciplinary and linked to the minimization of conflict. If the disciplinary approach is still appropriate in the case of corporate managerial capital dispersed, recent studies highlight the restrictive nature particularly in the case of innovative firms (Charreaux, 2002;

Wirtz, 2006). Value creation could not be reduced to a simple problem of discipline, but would also include a cognitive dimension, actually centered on the levers cognitive related to innovation and learning, which can create value. At the various strands of research in strategy, this approach highlights the central role of knowledge, skills and specific skills of the manager and his team (Kogut and Zander, 199). This knowledge is often tacit.

They contribute to both encourage innovation and strengthen competitive advantage and appear as real vectors of sustainable value creation (Wirtz, 2006). Cognitive theories are based on four common. The first is the current behavior (Simon, 1947) in which the firm is seen as a political coalition and a cognitive institution that adapts and learns (organizational learning).

The second is based on economic theory of evolution Neo-Schumpeterian (Nelson and Winter, 1982) which defines the firm as an entity comprised of activities in a coherent way, a repertoire of productive knowledge, a system of interpretation, which emphasizes the notion of competition based on innovation.

The third is based on the theories of the strategy based on the resources and skills ("resource based theory") that show the company as both a set of resources and an entity accumulation of knowledge guided by the vision of leaders due to their experience. As such, sustainable growth must be supported by the ability to learn and specificity of the stock of accumulated knowledge. The fourth is the power of organizational learning (Argyris and Schön, 1978) which emphasizes cognitive learning organizations.

The cognitive approach is novel in that it allows indigenizing the question of the origin of investment opportunities. Indeed, in the traditional view, the firm is interested few, if any, the source of investment opportunities. These opportunities are being "° available to policymakers °" in the image of a varied menu in which the leader would only have to choose "all possible activities for a company and

their characteristics in value creation are given exogenously. Although the information on this subject is distributed asymmetrically, it exists, is "objective" and can in principle be obtained, although it sometimes involves a significant cost "(Wirtz, 2006). To illustrate this idea, Wirtz cites the example given by Jensen (1993) on overcapacity in the tire industry: the assessment of overcapacity due to the introduction of new technology, the radial tire, is objectively verifiable; the opportunities for value creation in this industry are given (just to learn).

In this context, discipline is exerted on the head to force him to make the best choice possible through a reduction in information asymmetry. On the contrary, the theories "cognitive" introduce the notion of knowledge and not just information. If the information is seen as a closed set, objective (that is to say, potentially accessible to all individuals) data on the impacts of possible events, knowledge is an open set, subjective, resulting from the interpretation information by individuals, according to their cognitive models.

The construction of a unique investment opportunity, for example through technological innovation depends not only information (ie information that could have built the way), but also knowledge specific (and tacit) of its designers.Contrary to information in principle transferable to third parties, knowledge, built as a mental or cognitive structure, is a subjective concept and depends largely on the specific trajectory of the holder (Fransman, 1994). Through the case of Air Liquide Group, Wirtz (2006) proposes an approach that integrates both the disciplinary and cognitive dimension by showing that the weight of these two levers depends on the stage of business development. It highlights the potential asymmetry of knowledge between an officer and shareholder in innovative companies. This is a source of conflict that are explained by the mutual incomprehension between the two parties, not just by a simple difference of interest. These conflicts lead costs, called cognitive costs (Charreaux, 2002,

resulting from both dysfunctions caused by the mutual incomprehension of the various stakeholders and costs incurred to overcome the differences in the assessment of investment opportunities (in time and resources devoted to discussion, explanation, etc.).Wirtz (2006) appropriately distinguishes three kinds of cognitive costs: the costs of mentoring, generated for "standards to" the behavior of managers to the practices in the professional world of partners (such as a venture capitalist who helps a young shoot of high technology to comply with the purposes of financial reporting for capital ...), the costs of conviction, committed to understanding the intrinsic interest of a project and costs associated with residual cognitive misunderstanding on the part that remains.

2.1.5. Cognitive theory of governance: a different view of value creation

This theory rejects the assumption of calculative rationality in favor of a so-called procedural rationality. Rationality can be assessed more in terms of decisions, but the processes that govern them. In this theoretical approach to governance, value creation depends primarily identity and skills that are designed as a coherent whole (Teece et al, cited by Charreaux, 2002).

Similarly, the pattern of creation and ownership of the value that underlies it, is different from that underlying the disciplinary theories. In this approach, the organization is seen as a repository of knowledge able to perceive new opportunities, create value in a sustainable manner. The value comes from the emergence of all the opportunities. In addition, particular emphasis is given to the productive capacity both in terms of innovation for coordination.

In a cognitive perspective, Charreaux (2002) defines corporate governance as the set of mechanisms that have the potential to create value through learning and innovation.

Each of these theories suggests different modes of value creation. If the first two theories have a more static value creation, the cognitive approach gives a dynamic view. These three theories give a different view of governance mechanisms and ultimately to implement.

3. Research Methodology

3.1. Methodological tools

I chose to approach the performances of the actors of the company by using a common technique in cognitive approaches, that of cognitive mapping. This is a graphical modeling technique of cognition used in numerous studies in management sciences.

The cognitive map is not the only tool for analyzing the managerial cognition, but it is the most popular for the presentation of cognitive structures.

Cognitive mapping is a technique now well established captures the minds of the players about a problem or situation. A cognitive map allows you to view certain ideas and beliefs of an individual on a complex area such as corporate governance. A cognitive map is usually defined as the graphical representation of a person's beliefs about a particular field.

A map is not a scientific model based on an objective reality, but a representation of a part of the world as seen by an individual.

3.2. Description of the empirical investigation

To meet the research objectives mentioned above, a survey was conducted among players in the company of Tunisia. I have chosen as exploratory approach using multiple case studies.

The multiple case studies seek a better understanding of the phenomenon. They are to study a phenomenon in its natural setting by working with a limited number of cases. They are particularly interesting in the case of exploration of little-

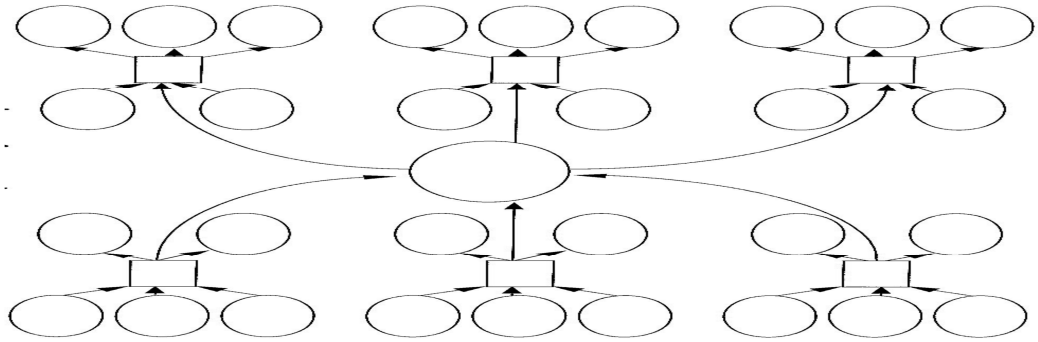
known phenomena. The case studies thus allow multiple accounts the specificities and characteristics of corporate governance.
The data is from10 firms. The decision to base my study on a sample of firms from various sectors is based on the assumption that a variety of issues will be addressed as well.
The output is a cognitive map for actors reflecting their perceptions vis-à-vis the stakeholder approach of corporate governance. The method used to create cognitive maps is the questionnaire.

3.3. Presentation of the questionnaire

The questionnaire is divided into two parts: the first identifies the company and the second deals with corporate governance. For the second part, relating to corporate governance, we interview actors from the firm on stakeholder approach of corporate governance by providing a list of concepts for each approach with systematic exploration grids and matrices cross. Systematic exploration of the grid is a technique for collecting materials.
Each player is encouraged to explore their own ideas or cognitive representations in relation to its strategic vision. The subject is asked to identify important factors that he said will have an impact on the key concept related to an approach to corporate governance.

Figure1

Grid systematic exploration



_Regarding the cross-matrix, it is also a technique of data collection and the basis for the construction of the cognitive map. The matrix is presented in the form of a table with n rows and n columns. Box of index (i, j) indicates the relationship between concept i and concept j.The actors manipulate the key concepts and assign pairs of concepts depending on the nature and degree of proximity sensed between these concepts.

Table1

Adjacency matrix

	Concept1	Concept2	……	Concept n
Concept1	1			
Concept2	L21	1		L2n
……			1	
Concept n	Ln1	Ln2		1

3.4. Proposal for modeling cognitive maps

When it is difficult to identify the goals, an integrated approach of performance provides a holistic view in which the performance is analyzed by the processes that lead, through the performances of the actors. These representation processes are two problems of implementation: the sharing of representations of actors and the identification of dominant representations in the organization in order to act upon them.

The construction of this representation necessarily requires a model that allows understanding to act is "an action of intentional design and construction, for composition of symbols, patterns that would make a complex phenomenon intelligible perceived.

In this context, the use of cognitive maps seems relevant, because they can take into account the complexity and comprehensiveness of the system in which [the behavior] is embedded, while maintaining access to the analysis" (Komocar, 1994). The value of the tool is instrumental (Audet, 1994), it allows both improving their actions and making sense.

Cognitive mapping is used as a tool for representation of an idiosyncratic schema (Cossette, 1994), a pattern is "a cognitive structure that guides the cutting of reality, the interpretation of events, and action individuals ", pattern unique to each individual, causing it to have its own behavior.

3.5. The construction of cognitive maps

We will see at first step that allowed the construction of concepts, methodological approach that we discuss. Then we will examine how the cards were dealt.

3.6. Concepts

We addressed this issue by the representations constructed by players using the method of cognitive maps, a method that can be applied to

poorly structured situations. An analysis based on cognitive maps can understand this process of structuring, as this model is to build or rebuild the mental simultaneously modeling. This construction takes the form of a structure, carrier for clarification.

It helps to identify ways to implement to achieve a given goal, the same way it helps to identify the goals justifying the use of such means. Finally, it facilitates communication and negotiation.

There are two major trends in the construction method of the cards: the determination of the concepts can be ex ante, or subsequent interviews with respondents for whom the cards are built. Komocar (1994) links the question of determining nodes - or concepts - and links to two paradigms. In the phenomenological paradigm, the universe is largely unknown. The emphasis is on describing the world from the experiences of people who experience it.

Nodes and links are determined directly by the participants that advocate Cossette and Audet (1994), not to deprive the subject of representations: the questions should be invitations for the respondent verbalizes his thoughts on what he considers important subject of research (Cossette, 1994). In addition, the researcher cannot force the subject to consider every possible link because the links must be made spontaneously or in response to open questions, so that the subject constructs its reality (Cossette and Audet, 1994). In the normative paradigm, the universe is more or less determined. The focus is on operational definitions and research plans reproducible. Observers, different participants, may determine the relationship between variables and nodes that can be.

Komocar proposes to take account of these two paradigms by adopting the following position: the nodes are determined a priori, and the links between these nodes are determined by the participants (Bougon et al. 1977; Komocar, 1994; Markoczy, 2001).

We selected 19 concepts for the partnership approach to their ability to describe the field of governance. We were guided in this by a

literature review and an exploratory study based on a questionnaire made up of grids of systematic exploration and cross-matrices. The concepts presented in the table below.

Table2

Key concepts for stakeholder approach

1.Knowledge (KN)
2. Creation of value (C V)
3. Competence (COMP)
4. Organizational learning (LORG)
5. Control (CON)
6. Communication (COMM)
7. Training (TR)
8. Cognitive resource (RES COG)
9. Growth opportunity (GR OPP)
10. Innovation (INN)
11. Specific capacitance (SP C)
12. Rationality (RAT)
13. Patterns of creation and ownership of the annuity (PCOA)
14. Repertoire of knowledge (REP KN)

4. Materials and methods of structural analysis

Analysis of the results led initially by a preliminary investigation of perceptions that are players in the Tunisian company vis-à-vis the stakeholder approach of governance.

This investigation was limited to the analysis of a collective cognitive map for all company, prepared on the basis of systematic exploration grids completed by the actors of the company.

From cognitive maps, we could identify and qualify the designs are the actors of the field of corporate governance.

The development and analysis of cognitive maps were made using the Mic-Mac software.

Our initial investigation focused on two elements: the relative importance of concepts and analysis of the dynamics of influence / dependence concepts (or variables) in the cognitive universe of players in the company. The relative importance of concepts was evaluated from the MIC. Mic-Mac program allowed us to rank the concepts in order to "balance" and "dependency."Thus arise the ideas that dominate in the cognitive universe of players.

Overview of structural analysis method

The main objective of structural analysis is to identify the most important variables in determining the evolution of the system. Inspired by graph theory, structural analysis is based on the description of a system using a matrix linking all its components. By weighting these relationships, the method highlights the key variables to changes in the system. As a tool, we opted for the software "Micmac" (cross-impact matrices, Multiplication Applied to Classification).

The first step of the method MICMAC is to identify all the variables characterizing the system under study (both external and internal variables). The second step involves the linking of variables in the construction of the matrix of direct influence and potential. Indeed, this approach is supported by the fact that in a systemic approach, a variable exists only through its network of relationships with other variables.

It is from this matrix what has identified the key variables. Indeed, we obtain the classification by the direct sum row and column. If the total connections line indicates the importance of the influence of a variable on the overall system (direct motor level), the total column shows the degree of dependence of one variable (level of direct dependence). The ranking against indirect detects hidden variables through a matrix multiplication program applied to indirect classification."This program allows us to study the distribution of

impacts by the paths and feedback loops, and therefore to prioritize the variables in order of influence."

4.1. Matrices and processing MICMAC method

All structural analysis matrices above have been established only from direct relationships between variables. However, it is clear that a variable can also exert influence on other variables indirectly, or through another variable ("path" of order 2), or through several others exercising their influence cascaded through "paths" for longer and longer, and can also loop over themselves. The classification of motor skills may be significantly altered, and understanding the mechanisms of the system similarly.

Establish direct relations matrices indirect paths of length two, then three ... then N would quickly become intractable.

A relatively simple mathematical processing (multiplication of a matrix by itself, and elevation of the power matrices N) solves this problem. Benefiting from the spread of computers and personal computer, the method MICMAC (cross-impact matrix-multiplication applied to classification) is a commercial version.As expected, the rankings of variables by motor / decreasing influence (or dependence) generally find it changed. But experience has shown that these rankings become almost stable after three or four students to the power, and they are clearly the importance of some new variables in terms of their indirect influences.

Map and analyzed at the collective level, the map is the collective model of mental representations of several people on a research topic identified. In some cases, the cards are developed by collective aggregation of individual cards and in other cases they are developed directly by building a group card. In the first case, the card is called collective and composite map is constructed by superimposing individual maps (M.G. Bougon & J.M. Komocar, 1994; M.G. Bougon, 1977; J.Ford& H. Hegarty, 1984). While in the second case, the cards

are called strategic and more individuals come to gether to create a community card. It then seeks to map the shared perceptions of a group of individuals on a particular area.

4.2. PRESENTATION OF VARIABLES

4.2.1 LIST OF VARIABLES

Knowledge (KN)
Creation of value (C V)
Competence (COMP)
Organizational learning (LORG)
Control (CON)
Communication (COMM)
Training (TR)
Cognitive resource (RES COG)
Growth opportunity (GR OPP)
Innovation (INN)
Specific capacitance (SP C)
Rationality (RAT)
Patterns of creation and ownership of the annuity (PCOA)
Repertoire of knowledge (REP KN)

4.2.2 THE INPUT

This step was to compile a matrix of direct influence between these variables in a scoring session. Matrix of direct influence (MID) which describes the relationship of direct influence between the variables defining the system and the Matrix Influences MIDP represents the potential direct influences and dependencies between existing and potential variables. The scoring has developed the input matrix "matrix of direct influences (MID).

The influences are rated from 0 to 3, with the ability to report potential influences.

4.2.3. MATRIX OF DIRECT INFLUENCES (MID)

Matrix of direct influence (MID) describes the relationship of direct influences between the variables defining the system.

Table 3

Matrix of direct influences

	KN	CV	COMP	LORG	CON	COMM	TR	RESCOG	GROPP	INN	SPC	RAT	PCOA	REPKN
KN	0	0	0	0	0	0	0	0	0	2	0	3	0	1
CV	0	0	0	1	0	0	0	P	0	0	0	0	0	0
COMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L ORG	0	1	2	0	P	0	0	0	0	2	0	3	0	2
CON	0	1	0	0	0	3	0	0	0	2	0	0	0	0
COMM	0	0	0	0	P	0	0	2	0	0	0	1	0	3
TR	0	2	0	0	0	0	0	0	0	1	0	0	0	0
RES COG	0	0	2	0	0	0	P	0	0	0	3	0	0	0
GR OPP	0	1	0	0	1	0	0	0	0	0	0	0	0	1
INN	2	0	0	1	0	0	2	0	3	0	0	3	0	0
SP C	0	1	0	1	0	0	0	2	0	0	0	0	0	0
RAT	3	0	0	1	0	0	0	1	0	0	0	0	0	2
PCOA	0	0	1	0	1	0	3	0	0	2	0	1	0	0
REP KN	1	0	0	3	0	0	2	0	0	0	1	0	0	0

The influences are rated from 0 to 3, with the ability to report potential influences:
0: No influence 1: Low 2: Average 3: Strong P: Potential

4.2.4. MATRIX OF DIRECT POTENTIAL INFLUENCES (MIDP)

The Matrix Influences MIDP represents the potential direct influences and dependencies between existing and potential variables.

It complements the matrix MID also taking into account possible relationships in the future.

4.2.4. MATRIX OF DIRECT POTENTIAL INFLUENCES (MIDP)

The Matrix Influences MIDP represents the potential direct influences and dependencies between existing and potential variables.

It complements the matrix MID also taking into account possible relationships in the future.

Table 4

Matrix of potential direct influences

	KN	CV	COMP	LORG	CON	COMM	TR	RESCOG	GROPP	INN	SPC	RAT	PCOA	REPKN
KN	0	0	0	0	0	0	0	0	0	2	0	3	0	1
CV	0	0	0	1	0	0	0	3	0	0	0	0	0	0
COMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L ORG	0	1	2	0	3	0	0	0	0	2	0	3	0	2
CON	0	1	0	0	0	3	0	0	0	2	0	0	0	0
COMM	0	0	0	0	3	0	0	2	0	0	0	1	0	3
TR	0	2	0	0	0	0	0	0	0	1	0	0	0	0
RES COG	0	0	2	0	0	0	3	0	0	0	3	0	0	0
GR OPP	0	1	0	0	1	0	0	0	0	0	0	0	0	1
INN	2	0	0	1	0	0	2	0	3	0	0	3	0	0
SP C	0	1	0	1	0	0	0	2	0	0	0	0	0	0
RAT	3	0	0	1	0	0	0	1	0	0	0	0	0	2
PCOA	0	0	1	0	1	0	3	0	0	2	0	1	0	0
REP KN	1	0	0	3	0	0	2	0	0	0	1	0	0	0

The influences are scored from 0 to 3:
0: No influence 1: Low 2: Average 3: Strong

5. RESULTS OF THE STUDY

5.1. DIRECT INFLUENCES

5.1.2. Characteristic of MID

This table shows the number of 0, 1, 2, 3,4 of the matrix and displays the filling ratio calculated as the ratio between the number

of MID values different from 0 and the total number of elements of the matrix.

Table 5

Characteristic of MID

Indicator	Size of matrix	Number of iterations	Number of zero	Numbre of one	Number of two	Number of three	Number of P	Total	Fill rate
Value	14	2	149	19	14	10	4	47	23,97959 %

5.1.3 Stability from MID

If it is shown that any matrix must converge to stability after a certain number of iterations (usually 4 or 5 for a matrix of size 30), it was interesting to monitor the stability during the successive multiplications.

In the absence of established criteria mathematically, it was chosen to rely on the number of permutations (bubble sort) necessary to classify each iteration, influence and dependence, all the variables of the matrix MID.

Table 6

Stability from MID

ITÉRATION	INFLUENCE	DÉPENDENCE
1	104%	105 %
2	98 %	105 %

5.2. POTENTIAL DIRECT INFLUENCES

5.2.1. Characteristic of MIDP

This table shows the number of 0, 1, 2, 3.4 and MIDP matrix displays the filling ratio calculated as the ratio between the number of MID values different from 0 and the total number of elements of the matrix.

Table 7

Characteristic of MIDP

INDICATOR	VALUE
Size of matrix	14
Number of iterations	2
Number of zero	149
Number of one	19
Number of two	14
Number of three	14
Number of P	0
Total	47
Fill rate	23,97959%

5.2.2. Stability from MIDP

If it is shown that any matrix must converge to stability after a certain number of iterations (usually 4 or 5 for a matrix of size 30), it was interesting to monitor the stability during the successive multiplications.

In the absence of established criteria mathematically, it was chosen to rely on the number of permutations (bubble sort) necessary to classify each iteration, influence and dependence, the set of variables.

Table 8

Stability from MIDP

ITÉRATION	INFLUENCE	DÉPENDENCE
1	102 %	117 %
2	91 %	93 %

5.3. NDIRECT INFLUENCES

5.3.1 Matrix of indirect influences (MII)

The matrix of indirect influences (MII) is the matrix of direct influences (MID) high power, by successive iterations. From

this matrix, a new classification of variables high lights the most important variables of the system. Indeed, it reveals the hidden variables through a matrix multiplication program applied to indirect classification.

This program allows us to study the distribution of impacts by the paths and feedback loops, and therefore to prioritize the variables in order of influence, taking into account the number of paths and loops of length 1, 2,. .. n from each variable in order of length, taking into account the number of paths and loops of length 1, 2, ...n arriving on each variable. The ranking is stable in general from an increase in the order 3, 4 or 5.

Table 9

Matrix of indirect influences

	KN	CV	COMP	LORG	CON	COMM	TR	RESCOG	GROPP	INN	SPC	RAT	PCOA	REPKN
KN	24	27	22	25	6	0	12	8	0	50	15	66	0	48
CV	15	0	0	12	0	0	8	3	6	0	2	6	0	0
COMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L ORG	24	36	30	26	6	0	12	10	0	62	15	81	0	57
CON	36	17	18	36	6	0	18	9	0	18	27	21	0	34
COMM	2	31	22	15	0	0	4	18	0	38	5	48	0	26
TR	9	10	6	3	3	0	0	3	0	12	0	15	0	17
RES COG	0	3	18	3	0	0	0	0	0	6	18	9	0	6
GR OPP	4	9	8	4	0	0	4	8	6	12	0	24	0	18
INN	56	6	12	64	0	9	42	9	24	30	22	60	0	33
SP C	15	7	2	18	0	0	8	15	6	2	2	9	0	8
RAT	57	19	12	41	0	0	26	22	24	20	5	48	0	38

PCOA	30	17	8	24	6	0	14	12	15	24	5	48	0	40
REP KN	63	1	6	51	0	0	34	12	30	2	13	33	0	26

The values represent the rate of indirect influences

5.4. POTENTIAL INDIRECT INFLUENCES

5.4.1. Matrix of potential indirect influences (MIIP)

The Matrix of Potential Indirect Influences (MIIP) is the matrix of direct influences Potential (MIDP) high power, by successive iterations.

From this matrix, a new classification of variables highlights the potentially most important variables of the system.

Table 10

Matrix of potential indirect influences

	KN	CV	COMP	L ORG	CON	COMM	TR	RES COG	GR OPP	INN	SP C	RAT	PCOA	REP KN
KN	24	27	22	25	30	0	21	8	0	50	15	66	0	48
CV	15	30	0	21	0	9	8	24	6	15	2	6	0	6
COMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L ORG	36	36	36	35	69	0	42	37	18	62	24	108	0	84
CON	36	26	24	36	15	27	45	9	0	36	36	21	0	34
COMM	14	43	22	24	57	0	19	45	18	44	5	75	0	53
TR	9	10	18	3	12	0	18	3	0	12	18	15	0	17
RES COG	6	3	18	12	9	0	24	27	9	6	18	18	0	6
GR OPP	4	9	14	4	21	0	13	11	6	12	9	24	0	18
INN	56	9	12	64	9	18	51	33	24	36	22	60	0	33
SP C	15	22	8	18	3	9	17	18	6	14	11	9	0	8
RAT	57	28	12	41	18	9	26	25	24	29	5	48	0	38
PCOA	30	17	8	24	24	0	17	33	15	24	5	48	0	40
REP KN	63	1	6	51	0	0	34	12	30	2	13	33	0	26

The values represent the rate of indirect potential influences

6. Conclusion and implications of the research

For the actors of that organization, the concepts of "control", "communication" and "patterns of creation and ownership of the annuity" are the most dominant in their cognitions reflecting an intention based on a logic that differs from the cognitive discipline of logic. Returning to the systematic exploration of grids for each actor, there is a balance of concepts expressing their orientation. For example an actor, these concepts are expressed through statements such as "competence," "productive capacity", "learning process». Thus reflecting an orientation to a productive logic.

The pattern of creation and appropriation of value underlying cognitive theories differ greatly from those underlying the disciplinary theories, in which the productive dimension is either ignored or reduced to aspects incentives (Langlois and Foss, 1999).

It leads in particular to a different cause of the existence of the firm that allows not only to distinguish the market but also of its competitors, that is to say of him define an identity. For example, to Foss (1996), firms exist because they can more efficiently coordinate collective learning process.

For Dosi (1994), firms are sets of key competencies and complementary assets associated with these skills and boundaries of the firm must be understood not only in terms of transaction costs but also in terms of learning, path dependencies, technological opportunities, selection and complementarity of assets.

The central element is the emphasis on the productive capacity both in terms of innovation for coordination. Thus, the problem of coordination can be effectively made in defining the firm as a simple information system; the coordination is done only on how incentive. It should be reformulated with respect to a growth target based on the use of information, not knowledge but, it does not reduce the collection of information but including processing and interpretation. This reformulation also implies a more complex view of the firm as an

open system and the abandonment of the concept of balance in favor of that process.

The efficiency depends not only on technology but also the motivation and skills of the workforce, organizational and managerial supervision, the latter two being based on the institutional structures and routines and cultural norms inherited the past.

The perceptual dimension of the entrepreneurial function related to the ability of management to think, perceive, build new opportunities also plays a key role, much more than the restructuring and reconfiguration of the business portfolios of firms in response to changes in the environment. The goal, remember, is to ensure sustainable value creation particularly through the construction of growth opportunities.

In summary, the firm as a processor or repository of knowledge based on the following uses of the cognitive argument: (1) the orientation of the activity according to the vision of leaders, (2) the creation of knowledge as a basis for innovation and all investment opportunities, this knowledge with tacit and social nature, which makes them difficult to imitate, (3) the protection of the knowledge base, (4) coordination of productive activity which involves the dimensions of the construction, operation and transfer of knowledge far beyond the mere transfer of information, (5) conflict resolution, which exceeds the only conflicts of interest to take a cognitive dimension.

This last point deserves special comment. A big difference from conflicts of interest and cognitive conflicts is that so it is interesting to minimize conflicts of interest, as this goal seems suboptimal for cognitive conflicts. Innovation, even simple adaptation, seems favored by the coexistence of conflicting cognitive schemas (Foss, 1996). In other words, the efficiency gains resulting from the reduction of cognitive conflicts can be more than offset by reducing the potential for innovation and adaptation. Here we find the traditional opposition

between "exploitation" and "exploration" or between "static efficiency" and efficiency "dynamic" (Dosi, 1990).

The cognitive approach of the firm is to reconsider the role of governance. It must identify and implement cost-effective investments in a dynamic efficiency perspective. According to Demsetz (1969), to understand the influence of the institutional framework - so that the system of governance - on dynamic efficiency, we must remember three objectives: (1) the ability to encourage a wide variety of experiences (2) the ability to promote investment for potentially successful experiment and to reject non-bearing investments such prospects, (3) the ability to use extensively the new knowledge generated.

The criticism to the financial vision of governance joins this approach: we need to expand this vision in order to consider the quality of the relationship between managers and investors and potential to increase the efficiency of the firm to identify and build opportunities for growth. In a broader perspective, the cognitive approach led to study the governance systems in terms of their influence on the different dimensions of cognitive processes of value creation.

The cognitive approach also leads to a reconsideration of the traditional financial approach to governance, in which the relationship between the firms with financial investors is limited to the provision of capital and the only objective is to secure investment financial discipline better leaders. Or, as suggested by various authors, finance also includes a cognitive dimension.

Thus, Aoki (2001) believes that in the model of governance associated with venture capital, it is not the venture capitalists ability to provide funding which is the most important factor, but that, on the basis of his knowledge and experience, on the one hand, to select the most promising projects, on the other hand, to deny financing (or refinancing) projects the least interesting, as soon as possible. Similarly, Charreaux (2002, 2002) offers an interpretation of the

funding policy based on cognitive arguments explicitly involves the provision of expertise on the part of shareholders, including the industrial shareholders. Such developments argue for a reconstruction of the financial governance vision extended to the cognitive

For the actor 2, this orientation is expressed in statements such as "information", "organization", "value creation", "schemas", "conflict", reflecting a logic-based cognitive understanding of ownership of the annuity. Visions cognitive focus primarily on the concepts of information and knowledge. From there, the organization is characterized by its ability to learn and generate knowledge: beyond the role of conflict resolution (contractual theories), the company produces knowledge that contributes to the process of value creation. The concepts of learning, building skills and innovation are central. The second quadrant contains the relay variables that are by definition both very influential and very dependent.

By analyzing the level of influence / dependence, there are players for the concepts or ideas illustrating the concepts of "organizational learning", "innovation", "Knowledge Directory", "rationality" and "knowledge". The ideas of the players in the Tunisian firms tend to focus on three basic concepts namely "property", "investment" and "value creation".

In this sense, the performance results from the creation of wealth that comes from making an investment that creates value. This achievement depends on the ability of each individual involved in the investment process to derive a satisfactory gain.

This concept of extended value to the various stakeholders has the interest to show that the creation of value not only the result of capital contributions by shareholders but the combined efforts of all partners. Different approaches to the creation of stakeholder value are possible. Charreaux and Desbrières (1998) Conference to provide a method for measuring stakeholder value creation, based on an overall measure of the rent created by the company in connection with the stakeholders

and not just shareholders. According to these authors, the stakeholder value created is calculated as the difference between the sales price (or cost) opportunity and the sum of opportunity costs of the stakeholders. For our part, we proposed a model for creating full value of three modules: organizational value, economic value and social value. Organizational value is defined as the quality of management and operation of the company. It contributes to the creation of economic value and social value, which are interacting. This integral value is a possible approach to stakeholder value. The measurement method of creating organizational value that we have proposed is based on the socio-economic theory. The measurement of organizational value creation is the sustainable reduction of hidden costs (or gain value). Organizational value created can be used according to the strategy of company executives, creation of economic value and / or social value. The model of value creation and stakeholder value integral we have proposed is part of the problem of global and sustainable performance of the company.

The third quadrant contains the dependent variables or resulting. They are both influential and very little dependent, particularly sensitive. They are the results of which is explained by the variable motor and relay. Thus there are the strong dependence of a number of factors such as training variables, and value creation. The fourth quadrant contains the independent variables are simultaneously influential and little bit dependent. They are relatively excluded from the dynamics of thinking by the Tunisian company.

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