
The first phase of transformation of an information system project: an essential element of success?

Dorota LESZCZYŃSKA
Laurence SAGLIETTO

http://www.ipag.fr/fr/accueil/la-recherche/publications-WP.html

IPAG Business School
184, Boulevard Saint-Germain
75006 Paris
France

IPAG working papers are circulated for discussion and comments only. They have not been peer-reviewed and may not be reproduced without permission of the authors.
The first phase of transformation of an information system project: an essential element of success?

Dorota LESZCZYŃSKA
IPAG Ecole supérieure de Commerce-Nice
Laboratory GREDEG UMR CNRS 6227

Laurence SAGLIETTO
University of Nice Sophia Antipolis
Laboratory GREDEG UMR CNRS 6227

Introduction

If perception is a concept which is necessarily intuitive in the analysis of transformations in information systems, it is not to be taken into account at its fair value in existing theoretical models. These models are mainly interested in the following triptych: Intelligence (formulation of the problem) - Design (design of alternatives) - Choice (choice of a solution) (Simon 1976). However, the development of systems adapted to each phase of the decision-making process, represents today a major challenge in information systems (Kivijärvi, 1997, Markus & Tanis, 2000. We will therefore focus on the first phase of a transformation: its perception. Very little mentioned in theoretical inputs, this phase is yet fundamentally linked to future organizational impacts of a project (Rowe and Besson, 2001: p.5).

Thus, research has shown that the perception at the beginning of the transformation by the actors impacts the process of its establishment (Gellis, 2001), increases the commitment to work (Leach, 2005) and the performance of the work (Rosen & al, 2006). Indeed, the perception is to undergo an action and respond intelligently (Elsbach, 2006). However, there has been little research in management of transformation which examines the psychological mechanisms of perception (Chang & al, 2009: p. 780). Some works in cognitive psychology (Piaget, 1967) however provide a framework conducive to remedying this deficiency. This is particularly the case in recent advances on the emotional experiences (Efenbein & al, 2007; Armenakis & al, 2007; Weick & al., 2005). The purpose of our research is therefore an attempt to understand how theoretical inputs in the processing field, on the one hand, and in the psycho-cognitive field of perception, on the other hand, can articulate and be mutually beneficial.

From this analysis, the question that drives our thinking can be formulated thus: how can a manager and his project team express their way of seeing the first phase of organizational transformation? We will identify, in a first part, the concepts of organizational transformation and organizational perception to highlight the interest of their approximation, so as to apprehend a more overall transformation in the information system projects.

In a second part, we will build a conceptual model of the main psychological mechanisms that connect organizational perception to the results of the transformation and illustrating it with two case studies.
Finally, in the third part, we will note that there is a link between the perception, the first phase of organizational transformation and the success of a project in information system. Therefore, it is at this stage that managerial interest will be meaningful. We will undertake a discussion on this link.

1. "Organizational Transformation" and "organizational perception": a successful connection

Organizational transformation represents the phases of realignment of the strategy, the structures, and the processes of the organization and the behaviour of the actors. Specifically, the transformation process involves the following three phases:

- a state of full readiness leading to the launch,
- the adoption and
- the institutionalization (Armenakis and Harris, 2002: p.169) of the project

During the first phase, the actors are prepared for the processing and (ideally) become a follower. Thus, the success of the organizational transformation is linked to the perception of this initial phase (Chang & al, 2009). Therefore, it is likely that the management methods used to launch a transformation differ from those used in subsequent phases.

1.1 Organizational transformation

The transformation is often referred to by terms of organizational changes (Coghlan, 2000) or reengineering (Hammer and Champy, 1993) and linked to related concepts such as leadership or the concept of resources and competencies (Burns, 1978; Gilmartin & D aunno, 2008). Two lines of theoretical research determine the boundaries of the transformation without offering a specific reading grid of management for the first phase of organizational transformation. It is important to briefly trace the essential ideas and the boundaries of these two currents, before sharing our point of view.

Firstly, the contextual approach representing an aspect of the processing situation (Hull and al, 1997) circumscribes the phenomenon. However, the contextual approach in the work in information systems is limited to the accumulation and transmission of knowledge preconceived without taking into account the psychological and emotional state of the actors (Dey and Abowd, 1999).

This approach is interesting because it specifies the transformation perimeter. The context, defined as an environment for performing tasks, is measured through indicators of: places, actor identity, activities and time (Dey and Abowd, 1999). The mobilization of these indicators provides different faces of the "context" concept as a critical factor in overall teamwork performance (Rotundo and Sackett, 2002) and facilitator of organizational transformation (Milton and Westphal, 2005; Van der Veg and Bunderson, 2005). This increases the belief of the team in the fact that the work is significant (Baron and Hannan, 2002, Bierly et al, 2000). Regarding this last aspect, Rowe and Besson (2001) pointed out, in a study on the dynamics of information systems projects, that the strategic maturity of the actors can be evaluated based on their level of understanding of the consequences for the organization. In this case the first phase of processing is directly concerned.

Secondly, the conduct of organizational transformation is analysed mainly through the theory of leadership in two forms: transformational (Burns, 1978; Bass, 1985; Gilmartin and D aunno, 2008) and emotionally intelligent (Cummings & al., 2005; Huy, 1999). This theory allows us to partially fill the limits of the contextual approach taking into account the actors emotions. Transformational leadership is positively and significantly related to staff/job satisfaction, additional effort (Gillis, 2001), to performance unity perceived (Stordeur & al, 2000), to a favourable organizational climate (Corrigan et al., 2002), organizational commitment, and, finally, to the conservation of the staff (Leach, 2005). Studies point out that cascading transformations in leadership (Bass, 1985), the upper echelons of the hierarchy managers behave in a more transformational than those with lower hierarchical position (Leach, 2005). With regards to studies that examine the role of leaders in the management of emotions in the workplace (Huy, 1999; Cummings & al., 2005; Haag and Laroche, 2009), they point out that an emotionally intelligent leader, open to others, generates increased reactions of satisfaction and dedication on the part of his staff. The feeling of "positive emotions"
determines the level of performance seen in the project. According to Haag and Laroche (2009: p. 85), “positive emotions occur when the actual performance is close to the performance to which we aspire”. Research results also showed that this type of management creates fewer negative effects when restructuring an organization. Kan and Parry (2004) specify in this regards that if the leadership style is a key factor of organizational transformation, but the structure and organizational culture, and particularly resistance to change, are also very important. The work of Harvey et al. (2006) refines these analyses taking an interest in stimuli and cognitive, motivational and emotional processes causing a change in organizational behaviour at the implementation of a project in information system.

In summary, it is therefore important to go further than the context and the leadership aspect to fully identify the first phase of transformation of a project. Indeed, the managers adopt, during this phase of the process (and a perception of the potential benefits), a specific style of management (Rowe and Besson, 2001: p. 17), because organizational perceptions are associated with desirable outcomes, including the increase in commitment to the work and performance (Chang et al., 2009; Van Kleef et al., 2009). Thus, the performance of a project is the result of the dynamics of the first phase of a transformation established by the management and the perception by the actors of this project, the organizational benefits and freedom of action of the actors. Their perception of this phase is, ultimately a critical factor to determine a project's success or failure (Rowe and Besson, 2001: p. 8). However, despite the intuitive appeal of the notion that the perceived transformation will have an impact on the key results, these previous works did not take an interest in the mechanism of such an impact.

The link between “transformation of organizations” and “organizational perception” having been established, we will now focus on the decryption of perception to have a more global vision. We seek to show that the perception of the first phase of processing is a critical variable in the success of a project.

1.2 Organizational perception

Perception links the actor to the environment through a moderator: the meaning. This perception is mobilized in management to study changing situations. Thus, the psycho-cognitive approach argues that the actors analyze their social environment to identify perceptual signals so as to determine their emotional experience (Efenbein et al, 2007; Davenport and Beck, 2000; Weick et al., 2005). Some psychologists have noticed that the emotional experience follows the perception of a stimulus. For example, Kelly and Barsade (2001) demonstrate that the interdependence of actors in a place of work results in a high intensity of evocative stimuli. Thus, the three stages of perception highlighted here are the revelation, the awareness and interpretation.

(i) The revelation occurs when a stimulus is in the scope of a sensory receptor (e.g. vision). The principal dimensions of a stimulus are its novelty, being pleasant and its relevance to the objectives (Efenbein et al, 2007).

(ii) The awareness is involved in the interception of the stimuli by sensory organs (Davenport and Beck) organs, 2000.

(iii) Finally, the interpretation is the attribution of meaning to a given situation (Weick et al., 2005). The work of research-action Armenakis et al. (2007, 2002) provide an illustration of the emotional experience. They emphasize the importance of the launching message of the transformation. This message communicates the nature of the transformation while inducing some indicative elements (named “feelings”) that determine the reactions to change (Armenakis and Harris, 2002: p. 169). The perception through experience shows a dynamic and constructive dimension. More specifically, the authors have five categories of feelings (Armenakis et al, 2007: pp. 276-277):

-the feeling of unconformity (divergence) is the existent perception of a need for change. The unconformity is a gap, an offset, with regards to an acceptable performance. It represents the justification for a strategic change. The identification and mobilization process of these cognitive styles, in a project team for example, is to evaluate awareness of the need for change (Armenakis et al, 2007: p. 276). The non-performance of certain important functions for the organization represents an
indication of unconformity. Thus, the unconformity imposes to provide information to the actors explaining why such organizational transformation is necessary.

- **The sense of the appropriation** is the belief of the actors, that a specific organizational transformation will effectively resolve conflicts. This belief is necessary so that they support the transformation. This sense means that the proposed transformation is perceived as appropriate for the concerned organizational context. Indeed, the actors can perceive a need for transformation, but disapprove the proposed amendment. Studies highlight the importance of confidence in the relevance of the change being implemented. The influence of the reasons given by the manager on the actors reactions is a function of the adequacy or the credibility of the mentioned reason, as well as the sincerity of the manager (Sitkin and behavioural, 1993).

- **The sense of efficiency** is defined as the confidence in the personal and organizational capacities to implement a successful organizational transformation. It is the hope (an effort that will lead to the success of a transformation), the feeling that success is possible, and the hope of achieving the new and necessary skills.

- **The main support** is the sense of behavioural integrity, meaning the perception of the correspondence between the words and the acts of the leaders. It is defined by the belief that the actors and their immediate manager support the organizational transformation and are motivated for the lead it to success. The main support includes the influence of respected colleagues and networks of interpersonal relationships in an organization.

- **The sense of valence** refers to the perception of personal benefits (or losses) which can be reasonably expected after an organizational change. This is a motivating factor that refers to the attractiveness of the (perceived or real) outcome associated with the initiative of an organizational change. Indeed, there is a link between attitudes toward the work transformations and the expected results. Some extrinsic motivation (for example, financial compensation) can be used to encourage actors to change their behaviour, at least until that the intrinsic value becomes apparent. Thus, a management encouraging (for example, the sharing of earnings) provides the extrinsic reward and can be integrated within the change initiatives.

Finally, the perception includes the meaning that change represents for leaders and actors, the extent in which they control (information), and the degree of confidence in people that promote the change (Coghlan, 2000). The transformation is evolving on the following continuum: improvement, uncertainty with positive probability, uncertainty with negative probability, threat and destruction. The response of the individual will depend on the assessment of his impact. Face with a specific situation, he may deny, shun, oppose, resist, tolerate, accept, or support. Some cognitive bias or aberrations (Sadler-Smith and Shefy, 2004) may then appear in the exchange of views between several actors interacting in a team. These point of views correspond more to an opinion rather than a real perception of the world.

It is then important to evoke the measurement of organizational perception, i.e. the difference between the objective of the change set by management and the perception that the members of the concerned team will have. Therefore there exist a link between the perception, the first phase of organizational transformation, and the performance of the project as we seek to illustrate, as this triptych is at the heart of the managers concerns in information systems.
2. Illustration

To appreciate all of the elements of theoretical currents on the perception, and enabling us to assess organizational transformation, we propose a mapping of the perception of the first phase of organizational transformation. The proposed model will be then illustrated by two case studies with a view to having a discussion.

2.1 Proposal of a perception model of the first phase of an organizational transformation

Our visualization of facts has for a starting point a stimulus. The phenomenon of perception includes two levels: (i) the effects of a set of characteristics (situational characteristics of the stimulus and the potential to deal with the situation\(^1\)) on the perception (structuring the types of perception - by the senses or by experience) and (ii) the effects of this perception on the evaluative judgment of actors, for an organizational transformation given (corresponding to the attitude and intent). The evaluative judgment (favourable, reserved or opposite) therefore leads to a certain performance, i.e. a certain faculty to implement actions so as to meet the objectives and to continue reporting the results. To create this mapping as a tool for analysis, the indicators created to address these conceptual dimensions, are derived from the work that we presented earlier. Schematically, the visualization of the problem is the following (see figure 1).

2.2 Methodology and analysis of the results

To illustrate this approach, going back before the process of transformation, we have chosen to refer to two case studies to have a critical approach of perceptions, commitments, incidents and strengths of the actors in the first phase of organizational transformation. The selection of the following case studies meets several criteria's/they are evocative when it comes to information system practices, they are relatively detailed so as to capture all the organizational dimensions and able to help us in the understanding the links between the transformation and perception.

- The data from the first case study of Alpha Company was collected from a semi-structured interview guide that led to examine the members of a team facing an organizational transformation in information systems (see Appendix 1). Interviews include issues related to the themes presented in the first part, while respecting the logic and the links of the perceptive model of organizational transformation (figure 1).

- The data from the second study case was recovered from Schebath and Mehmanpazir (2005) studies, detailing the transformation process into information systems. The case studies are presented in table 1. The data was analyzed according to the qualitative method of textual analysis (Huberman and Miles, 1991).

The results are presented in the following tables: the characteristics of an organizational transformation (table 2), the characteristics of the stimulus that corresponds to the announcement of the launch of the transformation (table 3), the organizational perception of the first phase of processing (table 4). These tables are organized as follows: the first column expresses the responses provided by

\(^1\) Paul Fraisse (1949) points out the obvious effect of attitudes on perceptual data selection. "Efficiency even of our perceptual activity is a function of an agreement between our attitude and the given" (p. 239). Thus, according to the author, the perceptual system must be understood as a function of the personality. “The perceptual processes responsible for detecting, selecting, and controlling information, are an aspect of the control system said to be the personality” (p. 247).
the Alpha company actors interviewed on the ground; the second column traces the data of the case study of the CCR foundation (Schebath and Mehmanpazir, 2005).

Figure 1: The perception of the first phase of organizational transformation

Table 1: Presentation of case studies

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary data collection</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>The questioned company that we named Alpha² is the French subsidiary of an international group specialised in the development of business process management software’s. It is a ten year old company with approximately 200 employees, it has for function to perform three major development missions concerning: software, customer support and applied research. The sector in which it lies in is highly competitive. The project concerns a micro-transformation: a change of department for the team and technology for the project that this team is carrying out.</td>
</tr>
<tr>
<td><strong>Secondary data collection</strong></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>The C.C.R foundation (Schebath and Mehmanpazir, 2005) is a non-profit making cultural organisation governed by the 1901 Act. Their main mission is to support and conduct cultural events (regional theatrical tours, fund management to support</td>
</tr>
</tbody>
</table>

² For Confidentiality reasons
contemporary art, summer animations, and the creation of informative catalogues ….).
For some 20 years of existence, it employs about 30 employees (p. 3).
The project concerns a macro-transformation: establishment of a new organizational structure and the acquisition of new computer resources (servers and computers…).
Table 2: Characteristics of organizational transformation

<table>
<thead>
<tr>
<th></th>
<th>ALPHA COMPANY</th>
<th>THE CCR FOUNDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Situational features of the launch of the transformation</strong></td>
<td>(the contextual approach)</td>
<td>(the contextual approach)</td>
</tr>
<tr>
<td><strong>The place</strong></td>
<td>The transformation takes place in a small team of a company specialised in the development of business process management software’s. (This project also concerns modules developed in foreign subsidiaries).</td>
<td>Transformation concerns all the employees of the association.</td>
</tr>
<tr>
<td><strong>The identity</strong></td>
<td>The five respondents are managers of the team, having either a degree or a doctorate. They have a service of 5 years in the company, the same rank, for an average of 40 years of age and with different past professional experiences.</td>
<td>Five people were interviewed by a consulting firm. The sample is representative of the non profit organisation (NPO) (the Director, the head in information system, a Department head, a chargé de mission and a Secretary (pp. 11-19)</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td>The members of the team are responsible for the development of innovative projects in information system such as the creation of integrated software modules.</td>
<td>The employees of the NPO are responsible for the animation of the cultural life of the region by their participation and the organisation of cultural events (p. 3).</td>
</tr>
<tr>
<td><strong>The time of the transaction</strong></td>
<td>The project was limited in time: it was done over a period of 3 years.</td>
<td>The project was limited in time: it was done over a period of one year and a half (p. 11).</td>
</tr>
<tr>
<td><strong>The potential of the actors and their preparation</strong></td>
<td><strong>Strategic maturity of actors</strong> The Alpha corporation has a cross organizational structure by projects. Therefore, the activities of the members vary depending on the project to which they are assigned.</td>
<td><strong>Strategic maturity of actors</strong> The CCR Foundation is in development. It has a unit type organization, organized in 4 autonomous departments and a universal IT department. The exchange of information between the departments is very difficult or non-existent (p. 6, p. 8). There is “a lack of team spirit” (p. 8), “the current organisational structure has not favoured the introduction of rules and habits to create team work” (p. 8).</td>
</tr>
<tr>
<td></td>
<td><strong>Identification of actors</strong> The emotional attachment is stronger to the corporation than to the manager of the team. The extent of the actors’ identification to the company’s objectives is through an annual survey. The themes</td>
<td><strong>Identification of actors</strong> Identification of employees is difficult to identify because of the heterogeneity of their status: CDI (job contract for an indefinite duration: for managers), CDD (job contract for a set duration of 5 years or young</td>
</tr>
</tbody>
</table>
addressed in this survey deals with the following points: 1 / the commitment of the employees defined by "a combination of attitudes and behavioural intentions" (concerning the commitment, the pride of belonging to the company, loyalty, the defence of the Organization), 2 / the perception of the company’s competitive position and the quality of its products and services, 3 / internal work relations; 4 / relations with the direct manager, 5 / the empowerment of employees, 6 / opportunities for personal development, 7 / the evaluation of individual performances as well as the company’s, 8 / the evaluation of informational process and the evolution assessment of the organizational structure, 9 / the innovation, 10 / customer service 11/ the understanding of the company’s strategy and the business model 12 / a balance between work and private life.

<table>
<thead>
<tr>
<th>Organizational benefits</th>
<th>Organizational benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>For this transformation, the mobilized resources are mainly financial and human, and to a lesser extent, technical and computer resources. For the human resources department, this is an important issue, due to the fact that the transformation requires a new definition of the staff’s tasks and financially, it involves many budget transfers.</td>
<td>The implementation of the new computer media has benefited from several sources: -the support of an external consultant specializing in the development of databases and whose mission was to put in place all the management tools taking into account the data necessary for the various services. -training courses for certain IT tools for employees (p. 11).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Freedom of action</th>
<th>Freedom of action</th>
</tr>
</thead>
<tbody>
<tr>
<td>This transformation was the sole intention of the hierarchy. It is a collaborative project and described as an “improved” initiative by the members of the team who have a freedom of action to accomplish it. The actors consider that the concept of organizational transformation is primarily an internal change of the organization and the most often cited examples can be grouped into three broad categories: a transformation on a small-scale (such as a change of project), on a medium scale (such as a change of department) and on a large-scale (such as a change of components, or a change of both department and technology).</td>
<td>This transformation was the will of the managing director supported by the board of directors. This transformation was supervised by a consultant. The departments were not given any help to coordinated themselves, employees had to use the “D system” (p. 8).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conscious control</th>
<th>Conscious control</th>
</tr>
</thead>
<tbody>
<tr>
<td>The manager never uses emotions in his management. An average score of 5/20 has been attributed to the following question: does your manager uses his emotions in his management?</td>
<td>Nothing is said on the emotions of the manager, but “the actors are left to their entire goodwill or their organization is strongly linked to their knowledge gained in the past” (p. 7).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management style</th>
<th>Management style</th>
</tr>
</thead>
</table>
| Interviewed employees believe that their manager has a | The management style is very authoritarian. Employees believe that “it is
“comprehensive” style of management, is open to others and does not employ specific indicators to measure the satisfaction and climate of the team. Thus, there is no interference with the annual analyses distributed by the parent company for all employees (as survey) which is of crucial importance for them.

always management (of the Foundation or of one of the departments as appropriate) that retains “the reins” and use their power of decision or their authority to manage missions” (p. 8).

<table>
<thead>
<tr>
<th>Table 3: Characteristics of the stimulus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALPHA COMPANY</strong></td>
</tr>
<tr>
<td>The characteristics of the stimulus</td>
</tr>
<tr>
<td><strong>Novelty</strong></td>
</tr>
<tr>
<td>The transformation stimulus simultaneously includes two elements: the change of department for the team and a new technology for the project that they must create. If the change of department is easily understood, we have requested more details on the change of technology. It consists of a change of the programming language and of the technological environment (client-server technology, Web).</td>
</tr>
<tr>
<td><strong>Intensity</strong></td>
</tr>
<tr>
<td>Although this is a micro-transformation, actors interviewed regarded it as major because it involves, simultaneously for the team, a change of department and the use of new technologies.</td>
</tr>
<tr>
<td><strong>Pleasant character</strong></td>
</tr>
<tr>
<td>The organizational transformation here has been put in place to meet a specific and frequent request: the development and delivery of new software.</td>
</tr>
<tr>
<td><strong>Relevance to the goals</strong></td>
</tr>
<tr>
<td>This type of transformation is common in the company and it corresponds to the company’s objectives who wish to meet the expectations of its customers.</td>
</tr>
</tbody>
</table>

| **THE CCR FOUNDATION**                 |
| The characteristics of the stimulus    |
| **Novelty**                            |
| The transformation stimulus includes several elements: the establishment of a new organizational structure (as autonomous departments), the acquisition of new IT resources (servers, computers, Ethernet network...) and a training course of two days for half the employees. |
| **Intensity**                          |
| This is a macro-transformation that impacts the entire organization of the foundation. It is a major internal transformation which has upset working relations. |
| **Pleasant character**                 |
| This transformation was designed to contribute to the development of the foundation, which was meant “to considerably reorient its activities with the will of their management and the growing expectations from the political and administration actors participating in its financing (p. 8).” |
| **Relevance to the goals**             |
| This transformation was necessary due to enlargement of the foundation and its new objectives. |
Table 4: Organizational perception of the first phase of transformation

<table>
<thead>
<tr>
<th>ALPH A COMPANY</th>
<th>THE CCR FOUNDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perception by the senses</strong></td>
<td><strong>Perception by the senses</strong></td>
</tr>
<tr>
<td><em>The revelation</em></td>
<td><em>The revelation</em></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><em>The attention given to this information the day of the announcement</em></td>
<td><em>The attention given to this information the day of the announcement</em></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interpretation</strong></td>
<td><strong>Interpretation</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perception by experience</strong></td>
<td><strong>Perception by experience</strong></td>
</tr>
<tr>
<td><em>Description of feelings from this transformation</em></td>
<td><em>Description of feelings from this transformation</em></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
the day of the meeting) allow us to see that there are very little differences. Thus, for each period, regarding the success of project, it has been estimated at 80%, the visibility of the means made available to 50%, the visibility of the time allocated to 100%, the satisfaction they get from this participation to 80%, informational control that they hold 70%, the degree of trust granted to the hierarchy of 20%.

<table>
<thead>
<tr>
<th>Experience of similar experiments (memory)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Although members have already experienced similar situations (this is explained by their cross organizational structure by projects), they believe that their prior experiences do not interfere in their reactions to this transformation and argue that the content of their actions are renewed with each new project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bias and aberrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors consider being sensitive to some interferences (false rumours, contradictions, contradictory announces…), and constraints in the transmission of the message stimulating the organizational transformation. They exist since the beginning of the project, to an acceptable degree, but they do not mind this state of fact.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bias and aberrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees are sensitive to information being circulated as “the lack of collective spirit regularly causes tensions due to the inability of exchanging and sharing the information needed for a better coordination of each other’s interventions” (p. 8).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluative judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project is evaluated with a “uncertain and positive probability” The only important thing for the team members is the outcome of the project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluative judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project is evaluated with a &quot; uncertain and positive probability&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitude and intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors are &quot;tolerant&quot; regarding the transformation. They intend to go to finish the project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitude and intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors are quickly discouraged.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The result of this organizational transformation is regarded on the short term by actors as positive, but partial on the medium term. Indeed, the organizational transformation was perceived positively because the job could be done under acceptable conditions and the project will be completed in time. However, new changes in technology are already programmed in the near future.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The result is negative for management and very insufficient for employees. On the long term, the establishment of this transformation has not improved their working conditions. On the contrary, their condition has deteriorated. A consulting firm responsible for the audit of this transformation has identified several shortcomings related to the organizational structure and methods of work in progress (p. 8).</td>
</tr>
</tbody>
</table>
3. Discussion

Our research offers the opportunity to illustrate an aspect of the dynamics of information systems in their organizational environment by shedding some light over existing theories: the contextual approach and current research on leadership.

Our research reflects the existence of a link (which remains to be generalized in future research), between the first phase of the organizational transformation and how the team members perceive the objective that is assigned to them and which leads to some form of performance (Chang et al, 2009). Overall the results show that the actors commit themselves more strongly if the project can create some personal and collective value. Their perception seems to impact, in these cases, the manner in which they are going to invest themselves in the project. Secondly, the results of the two case studies differ when one is interested in the leadership of the transformation. In the case of the alpha company, the leader has a comprehensive behaviour. This leader does not seek to maintain the exercise of his control; he has a receptive attitude and demonstrates "latitude" concerning the team’s objective. For its part, the team accepts the project without withdrawing themselves. The team seeks to create favourable conditions for the establishment of a new transformation. Thus, the team positively relates itself with the transformation, and is more accountable. In the case of the CCR foundation, the leader uses all his authority and power and the processing results are not satisfactory. In comparison, transformation leadership borrows conflicting paths whose social meanings would require to be analyzed more specifically, to understand the processes involved.

Thus, our results highlight that actors organize their sensations, interpret them and completes them through experiences based on their perception of the transformation. Their perception is therefore as important as the study, the prediction of the performance factors and the risks of the transformation. We can find in the responses given by the employees of alpha company, an attitude of resignation corresponding to a part of "inertia", which annihilates the resistance to change of actors. The fact of being used to changes usually weakens the reaction of the team to new projects, but indirectly, it influences more strongly the perception they have of their company in general. This habit is due to the cross organizational structure of this company. The transversal aspect (and with it the frequency of the projects and therefore the constitutions and reconstructions of teams) somehow diminishes the reluctance. They are then replaced by the spirit of overachievement and the stimulation linked to a challenge (to take up). On the contrary, in the case of the CCR foundation, when these elements are missing and the probabilistic report is low, the project is a failure. More generally, these observations may be tempered by the majority’s or minority’s influences that exist within any undertakings and which come from the representation process within the reality, which differs in their development, the underlying conflicts and their action.

Finally, the theoretical contributions on the evaluative judgment (Coghlan, 2000) highlight regular situations where deviations that create corrective actions that are aimed at achieving a certain organizational performance. It is significant to note that the nomenclature of "cognitive assessment" tends to induce a false dichotomy (controlled automatic/registration of the stimulus) where the cognitive term suggests that the assessment is verbal, conscious, deliberate, logical and slow (Ellsworth and Scherer, 2003). However, the results of our research show that evaluations, even controlled, can be made very quickly by experienced actors engaged in the assessment of events with the greater relevance in the first phase of a transformation. Thus, if their choices are appropriate, the result of the transformation process can be achieved with some success.
The interest of our model (the assessment of the perception as seen through the eyes of the actors) to organizational transformation is then double. Firstly, this approach allows to improve the integration of the various organizational processes and to capitalise experiences. Secondly, it can be a key element of the decision-making process, when it comes to making the decision to continue with the transformation or not. Indeed, this model implies that the transformation and perception process involves some anticipation and adaptation that refers to the concept of perceptual experience. Actors use the information stored (Forgas and George, 2001) to reduce some of the uncertainty. Similarly, the intuitive knowledge and the immediate understanding (Simon 1989: p. 63), plays an important role in the development of a proactive vision.

**Conclusion**

Our research underlined several objectives. Firstly, the development of a model to better understand the perception of the first phase of organizational transformation; Secondly, to implement the use of the” implementation protocol” to highlight the major steps that lead to the evaluative judgment of the project and thirdly the search for the existence of a link between the expression of the team’s perception and the success of the project, which stems from a certain performance of transformation. Built on the concept of transformation and the psycho-cognitive approach of perception, this research demonstrates the need to articulate these two theoretical approaches in a structure describing the management of information systems projects. Illustrative results of our investigation leads to several conclusions. We have shown that the first phase of transformation can be grasped through a collective perception model allowing us to take into consideration the intentions of the actors. Once the model is detailed, it may become a significant element of action research projects conducted in information systems. However, at a time where researchers pay more and more attention to the “black box” effects of transformational leadership (Kirkman et al, 2009, Gong et al., 2009), the cultural influences that affect the leadership and other phenomena’s of organizational behaviour remain to be explored.
Annex 1: The maintenance guide

(Note: the explanations and/or relationships with key concepts are presented in a smaller font and italics)

Contextual attributes
1. Can you present your business?
   (Framework = describe the business, number of employees...)
2. Can you talk about its evolution and its important strategies?
   (The context (=situational characteristics): situation of the company in its group with the competitors and type of strategy)
3. Can you talk about yourself?
   (Individual characteristic = of the actors), CV of the interviewees, situation in the business, rank, position, seniority... (Attitude, type of personality...)
4. Can you talk about Project X:
   (The subject = the stimulus; the stimulus characteristics = characteristics of transformation)

Characteristics of the transformation
5. Could the project you are currently working on, be regarded as an organizational transformation?
   - (Yes, no, partially)
6. Before everything, in a general manner, what is your perspective on organizational transformations?
7. More specifically, in a general manner, organizational transformation makes you think of (the closest synonym):
   - an organizational change, a reengineering of management, structuring-restructuring, a metamorphosis, a second-order change
   - Please categorize these proposals (from the nearest = 1 to the more remote = 5)
8. How would you define, in a general manner, the idea of “an organizational transformation”?
9. More specifically, (regarding this project in particular) how would you define this transformation?
   - from a structural point of view, you consider them as... an innovation, a mutation, an evolution
10. Specifically, (regarding this project in particular) how you define this transformation?
    - from the point of view of the operation, you consider them rather as... an innovation, a mutation, evolution
11. What are, for this project, the mobilized resources
    - In terms of human resources.
    - In terms of technical and IT resources
    - In terms of financial resources
12. Would you say that this project impacts all or a part of the Organization?
    (Measure of the magnitude of the transformation = from a description - systemic or incremental)
13. Between these proposals, you would say that this project is rather coming from:
    - The only control of the hierarchy, a consensus between the hierarchy and managers, of an individual project, a collaborative project, a spontaneous initiative, strongly reflected initiative, from an improvised initiative....
    (Measure of the intensity of the transformation (of the project) = from a description - reactive, proactive, passive - spontaneous, collaborative or dictatorial.) Measurement of the model: from a historical description - research of the origin of the improvisation and formalization stimulus)
14. In a general manner, what is your “management style”?
15. Do you involve your emotions in your management?
   (If yes, what importance do you give them, can give you a score out of 20)
16. What are your indicators to assess the satisfaction of your team members?
17. What are your indicators to assess the climate in your team?
18. What are the incentives that you use most to motivate your team?
19. And on the other hand, what are the disciplinary actions that you use the most?

*(Latitude = the flexibility of a leader and the use of his power)*

<table>
<thead>
<tr>
<th>The perception</th>
<th>At the beginning</th>
<th>15(j)/1mois</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. What % of success have you assigned to the project?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. What % of visibility have you assigned to the project concerning means / resources provided?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. What % of visibility you have attributed to the project concerning the time allotted?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. In 4 or 5 key words can you define what the project represents for you?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. What degrees of confidence (on a scale of 1 to 5) do you have in your hierarchy?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Did you think you had full control (in the sense of information control) of the project on a scale of 1 to 5?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Are you happy to participate in this project on a scale of 1 to 5?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. How do you evaluate the project? Enhancing, Uncertain, Threatening, Destructive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. With regards to the project, how do you position yourself? You would say that you: Deny, Dodge, object, Resist, Tolerate, Accept, Support, Embrace Can you describe to us what you feel about this project?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. How did we announce the transformation to you? <em>(The revelation)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. How was it presented to you? <em>(The revelation)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. What degree of attention did you grant this information with, on the day of the announcement? <em>(the degree of attention)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*An information among others, we continued to reflect during the day..., was talked about it with the colleagues, we went to speak with the hierarchy*

| 32. How did you interpret this information? *(Interpretation)* Did you take some immediate initiatives; did you plan ahead for some future actions... |               |             |       |
| 33. You had already experienced a similar situation? If yes, did it have an influence on your behaviour (Yes, no, partially) *(The Memory = is the short-term use of the service for the immediate decision-making process or the longest conservational term of service).* |               |             |       |

**Bias and aberrations**

Were there...

34. False rumours?
35. Denials
36. Rumours
37. Support / Information / Communication
38. Conflicting announcements
39. Did this affect your vision of the project?

**Results**

40. What are your thoughts on the outcome of the project?