Organizational Flexibility: A dynamic evaluation of Volberda's theory

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Abstract
Many scholars have focused on redefining the balance between exploitation and exploration of new competitive advantage in terms of organizational flexibility without offering a comprehensive modelling which explains the relationships between its key variables and consequent side effects of such iterations. Exploring these interactions and the dynamic adaptation processes towards the desired adjustment is the main motivation of the present research. In order to improve our understanding of organizational flexibility, we examine Volberda´s theory (Volberda, 1998) in detail in terms of its causal explanation of organizational adaptation to changing environments along the enterprise lifecycle. To accomplish with this objective, this paper presents the identification of the relationships between key constructs of Volberda's framework, a causal model to understand the dynamic processes implied on the transformation strategies and, the dynamic hypothesis developed to explain some constraints that will be tested by means of the formalization of the causal model and its dynamic simulation accordingly. The first results of this prior causal model have allowed improving our understanding about organizational flexibility as a dynamic adjustment process and, particularly, about the consequences of decision policies concerning flexible capabilities management and organizational responsiveness while the firm is wrestling with the environmental turbulence.

INTRODUCCION

It is widely accepted that, organizations today are facing the issue of responding continually to an environment, which is increasingly dynamic, complex and uncertain as a consequence of demographic changes, a more global economy, the "hyper-competition", or knowledge-based competition (Daft and Lewin, 1993). A company's competitivity will depend not only on being efficient in their organisational routines but also on their innovative ability at the same time (Abernathy, 1978; Hayes and Abernathy, 1980) which represents the notion of balance between exploration (be innovative – radical change) and exploitation (be efficient in organizational routines – incremental change). This is a common topic in literature related to organizational adaptation (Benner and Tushman, 2001). Such balance allows the firm to obtain and sustain its competitive advantage which, according to Sommer has to be redefined in terms of organizational speed and flexibility (Sommer, 2003). This characteristic is related to develop new dynamic processes that enable for instance, a fast reconfiguration of the resource base (Helfat et al., 2007, Eisenhardt and Martin 2000, Teece et al. 1997), changing the nature of activities (Aaker and Mascarenhas, 1984), or dismantling of current strategies (Harrigan, 1985).

The interest on organizational flexibility has been growing in the last decades and different approaches have emerged with focus on dimensions of organizational flexibility (e.g. Eppink (1978); Volberda (1996); Sanchez (2004); Verdú-Jover et al. (2005); Hatum and Pettigrew (2006)), on the interaction between firm size and organizational flexibility (e.g. Kraatz and Zajac (2001), Ebben and Johnson (2005)), on context specificity of flexible capabilities (e.g. Eppink (1978); Volberda (1996);; Verdú-Jover et al. (2005), Nadkarni and Narayanan (2007)). Literature in organizational flexibility is still lacking of comprehensive modelling which explains the relationships between its key variables and consequent side effects of such iterations. Exploring these interactions and the dynamic adaptation processes towards the desired adjustment is the main motivation of the present research.

We decided to start our analysis with Volberda´s model on organizational flexibility which addresses how the companies should manage their dynamic capabilities and organizational design, in order to achieve the desired fit by being flexible. He studied how the organizations deal with the paradox of flexibility over time, that means, how they continuously adapt to the changes in the environment and balance corporate discipline with entrepreneurial creativity. Exploring the paradoxical nature of flexibility, Volberda (1998) develops a strategic flexibility framework to configure the resources of the firm for effective responses to organizational change providing a comprehensive set of variables and their linear relationships. In addition to this argument, we found that Volberda anticipated the possibility of modelling the adaptation process from a dynamic point of view: *"Flexibility is not a static condition, but it is a dynamic process. Time is a very essential factor of organizational flexibility."* (Volberda, 1998). However, he didn't focus on such adaptation process as a sequence of stages allowing to understanding key factors of organizational flexibility.

This paper examines Volberda´s theory in detail in order to analyze its consistency and effectiveness, especially in terms of its causal explanation of organizational adaptation to changing environments. The causal argument Volberda presents is very detailed and relatively explicit. Therefore, this work aims to use Volberda's theory as foundation for

its systematic exploration. Based on Sastry's framework[1] (1997: 237), we develop a causal model to analyze the dynamics of transformation strategies about organizational flexibility, as proposed in Volberda´s theoretical framework.

Building Flexible Forms

Organizational flexibility was previously mentioned by relevant authors of strategic management field as an important condition for organizational survival. According to Daft & Lewin (1993: ii), historically, managers designed and redesigned organizations by making modifications to traditional bureaucratic forms on the basis of intuition, past experience, imitation, and personal attitudes and preferences. New organization forms open up new sources of sustained competitive advantage and strategies for hypercompetitive environments can only be undertaken within the limits enabled by organization form (Volberda, 1998: 263). As Ilinitch et al., (1996) noted, increasingly changing competitive forces have spawned experimentation with new and variable flexible organizational forms. Traditional bureaucratic forms of organizing worked well within an environment that was relatively benign and predictable, but they were no longer enough in a complex and highly competitive environment (Graetz and Smith, 2006).

In the development of his organizational flexibility framework Volberda (1998) started trying to define a more complete definition for such complex topic "organizational flexibility". On the basis of insights drawn from control theories, Volberda states that "*organizational flexibility derives from the control capacity of the management and the controllability of the organization"* (1998:81). From this definition, organizational flexibility is treated as a two-dimensional concept: the managerial task and the organizational design task (1998: 97); and they constitute the two most important blocks of organizational flexibility. Both tasks need to be fit with the combination of environmental characteristics. The interaction between these three forces determines how the paradox of flexibility gets resolved and results on different organisational forms along enterprise lifecycle: rigid, planned, flexible and chaotic. In Volberda's model of organizational flexibility, if the firm is doing efficiently its managerial task is denoted by "the sufficiency of flexibility mix" and when the firm is doing its organizational design correctly, it is denoted by "the adequacy of organization design" (Van der weerdt, 2009) (see Figure 1).

[1] *"…Because action is central to theories of organizational change, a causal modelling approach suitable for capturing dynamics is needed instead." (Sastry, 1997)*

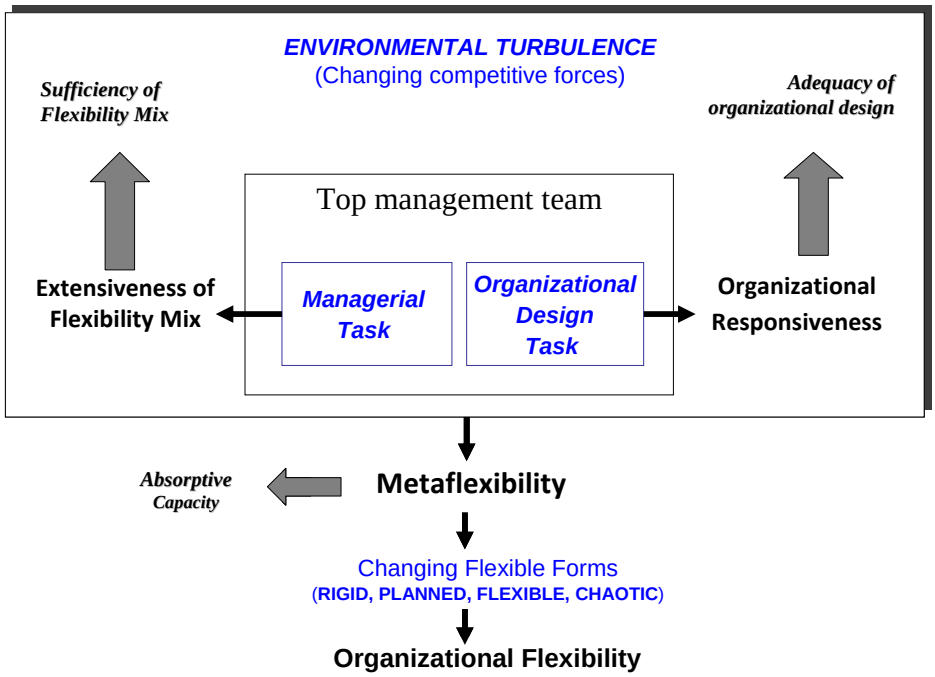


Figure 1. Components of organizational flexibility (source Volberda, 1998)

In more detail, firstly flexibility is perceived as a managerial task and concerns to find out which dynamic capabilities promote flexibility to the company: capabilities to react to changes in the environment. The repertoire of possible combinations of these dynamic capabilities is known, according to Volberda framework, as the **extensiveness of flexibility mix**. This concept can get different values (limited or broad) depending on the variety of capabilities and the rapidity the firm can apply them in each combination. This concept shapes what Volberda named as the *"actual level of flexibility"* in the firm and can represent different approaches to manage flexible capabilities gathered in the following table (Table 1).

Table 1. Several dimensions of Extensiveness of flexibility mix (source: Volberda, 1998).

Extensiveness of Flex. Mix	Definition
Limited	The firm has developed a large ability to change the volume and mix of business activities. The firm dominates the operational flexibility (*'routine manoeuvring capacity'*, Volberda, 1998:117) (in the absence of the other two skills).
Medium	The firm has a good level of operational flexibility but a greater ability to change the organization structure and decision-making and communication processes. That is, the firm dominates the structural flexibility (*'adaptive manoeuvring capacity',* Volberda, 1998:117)
Broad	The firm has a good level of operational and structural flexibility but a greater ability to change corporate strategy and the nature of business activities. That is, the firm dominates the strategic flexibility (*'strategic manoeuvring capacity',* Volberda, 1998:117)

For instance, with a limited level of extensiveness of flexibility mix the firm can easily change production volumes or use temporary labour (preponderance of Operational Flexibility (Volberda, 1998: 118)). However, it is very difficult for the company to

make alterations in control systems or be able to co-design with suppliers (structural flexibility). Furthermore, it is improbable that the firm can rapidly apply new technologies or use the market power to deter entry and control competitors. On the contrary, a broad level of extensiveness of flexibility mix implies higher skills to dismantle the current strategy, renewal product portfolio, create new product-market combinations or engage in political activities to counteract trade regulations (preponderance of Strategic Flexibility (Volberda, 1998: 118)).

In addition, Volberda (Volberda, 1998) identified other type of managerial flexibility named as 'metaflexibility' which is built on creative or meta-capabilities. It represents the supporting monitoring or learning system of the organization. **Metaflexibility** involves the processing of information to facilitate the continual adjustment of the composition of management's flexibility mix in line with changes in the environment, that means, how fast the flexibility mix can be adjusted over time. Analysing the level of a company meta-flexibility implies go in depth into the ability to access new knowledge from outside the boundaries of the firm, to scan the environment advancing possible technological changes or in market preferences, and the evaluation of the implications for the organization.

Flexibility is also perceived to be an organizational design task. Can the organization react at the right time in the directed way? The concern here is with the **responsiveness** or organizational manoeuvrability, which depends on the creation of the right conditions to foster flexibility: the appropriate organisational conditions which are necessary to effectively exploit the flexibility mix. To design the appropriate organisational conditions requires identifying the type of technological, structural or cultural changes necessary to ensure effective utilization of managerial capabilities (Zelenovic, 1982). This concept can get different values (low or high) depending on the limits of the organizational conditions. This concept shapes what Volberda named as the *"potential level of flexibility"* in the firm and represents the firm's architecture (Table2). If the management task aims to increase the flexibility repertoire beyond the limits of the organizational conditions, the organisation's response capacity will decrease (Grant, 1996).

Table 2. Several dimensions of responsiveness (source: Volberda, 1998).

Responsiveness	Definition
Low	The firm has a very restricted response capacity confronting the changes on the environmental turbulence. It does not allow potential for flexibility and result in a fragile and vulnerable organization (very routine technology, mechanistic structure and conservative culture (Volberda, 1998: 211))
Medium	As long as the organization encounters no unexpected changes, its controllability is high. However, confronting un-anticipated changes, the firm manages incremental changes which do not necessarily keep pace with the environmental changes (the rigidity in this case is a result of the mechanistic structure and conservative culture (Volberda, 1998: 212))
High	The response capacity of the firm allows implementing change easily through adaptations within the current non-routine technology, organic structure and innovative culture (Volberda, 1998: 211).

Having said that organizational flexibility represents the outcome interaction between the responsiveness of the firm's resources and the mix of managerial dynamic capabilities (Volberda, 1998:97), the variety of combinations of these two central dimensions forms four ideal types achieving flexibility: the *rigid*, the *planned*, the *flexible*, and the *chaotic* configuration. Volberda identified this typology as the flexible forms which enable firms to initiate or to respond successfully to different kinds of competition (see Figure 2).

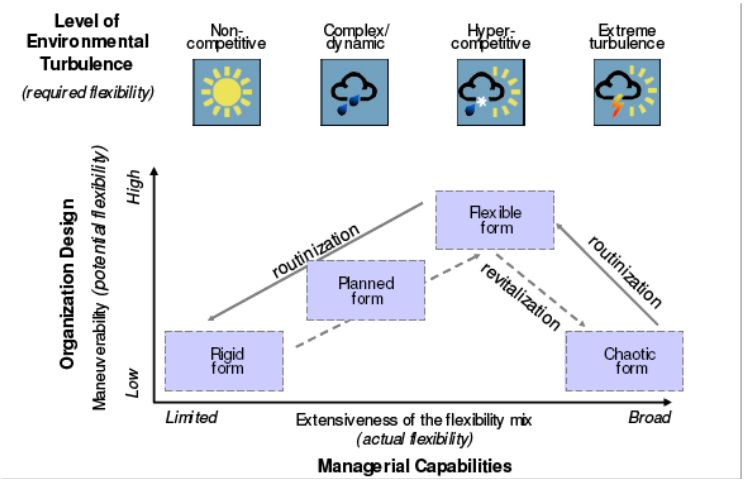


Figure 2. Volberda´s typology of strategic configurations (van der Weerdt & Volberda, 2006).

According to Volberda, each of these organizational forms provides to the firm the level of flexibility required to sustain their competitive advantage if a variety of conditions takes place (See Table 3).

Table 3. Characterisation of Volberda's firm typology (source: Volberda, 1998).

	Environmental Turbulence	Extensiveness of Flex. Mix	Responsiveness	Metaflexibility
RIGID form	Non-Competitive: Static, simple and predictable	Limited: Steady-state flexibility	Low potential: Routine Technology, Mechanistic Structure and Conservative Culture	Elementary absorptive-capacity
PLANNED form	Moderately turbulent: Dynamic and/or complex, but not unpredictable.	Dominated by operational flexibility	A more non-routine technology, a relatively mechanistic structure, and a conservative culture	Very extensive absorptive-capacity
FLEXIBLE form	Unpredictable environment: Dynamic and/or complex, but most of all unpredictable.	Dominated by structural and strategic flexibility	High potential: Non-routine technology, organic structure, and innovative culture	Unlearning and receptiveness to new environments
CHAOTIC form	Very dynamic and/or complex, and fundamentally unpredictable.	Dominated by strategic flexibility	Extreme potential: No distinct technology, no stable administrative structures, or basic 'shared values' in organizational culture	Uncontrolled capacity

Based on the statement that none of them is a permanent solution to solve flexibility paradox, Volberda proposes different trajectories for coping with competitive change (Volberda, 1998: 8). The form by which firm can move from one towards another Volberda's flexible firms concerns how its level of flexibility mix extensiveness and responsiveness can be changed by adapting to the environmental changes. In 'flexible firm' model he presents two trajectories of change as modes of organizational change behaviour to meet various levels of competition (Volberda, 1998: 215): *routinization of entrepreneurial firms* and *revitalization of large established firms*.

Broadly speaking, facing the paradox of flexibility (balance between stability and change) is not a simple task. The large variety of scenarios to which the firms face, requires different strategies of adjustment to which the firm has to be ready, either for necessity of change or, for necessity of stability. When stability is needed, the actual flexible form should move towards the left side of the figure (Figure 2) in order to achieve the desired form. This movement reproduces a routinization strategy[2] which, according to Volberda, is most likely in moderately competitive environments where the firm confronts with decreasing levels of environmental turbulence (1998: 265). This strategy is needed when the company suffers a surplus on its extensiveness of flexibility mix over what it is needed to cope with the competence levels and, furthermore the firm's responsiveness is too high that impedes the firm to maintain its competitive advantages. It implies a joint action of the following decision policies:

- To condense the extensiveness of flexibility mix (perform the managerial task). It means to concentrate the company's efforts in adapting new competitive advantages in order to be ready for the competence entrance. It will imply, generally speaking, to refine existing core competencies and to establish more control over new flexible capabilities that allows focusing the strategy in one direction.
- To adapt the organizational conditions potentiating the new flexibility mix in new environments; that means to lessen firm's responsiveness level (adapt organizational conditions to the new combination of flex mix). It will imply, generally speaking, tendency to more standardization and professionalization of processes and institutionalization of information processing and decision making (structure more mechanistic) and focusing the variety of cultures that exist in the organization in order to avoid deviating firm's visions (introduce conservatism in culture conditions towards common values).

On the opposite side, if the organization presents needs of change, the actual flexible form should move towards the right side of the figure (Figure 2) in order to achieve the desired form. It should apply strategies that allow to controlling the transition toward increasingly competitive markets in which it is growing a real threat of survival. This movement is called revitalization strategy (Volberda, 1998: 219). Generally speaking, this type of transition used to be initiated when the firm wants to address new market tendencies, new business models, new competitive advantages and it will be more

[2] *The most likely trajectory firms go through is a transition from a chaotic state to flexible form (Volberda, 1998: 217).*

effective under hyper-competition. It implies a joint action of the following decision policies:

- To extend the extensiveness of flexibility mix (create new capacities or activated which could be unexploited). It means to unlearn 'old' routines, to develop new core competencies, extend the firm's ability to change decision-making and communication processes and to change corporate strategy and/or the nature of business activities.
- To strengthen the firm's responsiveness in order to provide the new managerial capabilities the architecture needed: less process regulation (e.g. less formalization and specialization) and loosening the basic organization form (structure more organic), a more open, external orientation and increased tolerance for ambiguity (culture more innovative/less conservative).

Such change processes are not as simple as they seem and we identified some discrepancies. What would happen if, after the implementation of any strategy, the new combination does not achieve the required level of organizational flexibility? That is, the performance of managerial and organizational design tasks is not suitable. It could imply that the decision policies of the strategy (routinization or revitalization) are not as appropriate as it should be. The above question represents the key motivation to study in more detail Volberda's approach.

RESEARCH APPROACH

The accuracy in the development of both change strategies in achieving the correct adaptation to the environmental turbulence may depend, in a large or small extent, on multiple factors that intervene in such transformation process, such as sector or industry, enterprise size, performance, geographic orientation and/or legal typology of the firm. In addition, it is important to consider how the delays in the transformation process can affect to the success of the changes and subsequently in organizational flexibility (e.g. the time lag between the occurrence of the change in environment and the managers in realize on this change, or how much time the firm needs to activate the required change strategy).

Therefore, we proposed as a first step, to start clarifying the meaning of Volberda's framework concepts by identifying the key variables, their relationships and dynamic behaviour. Having established such common understanding, a second step was to develop a causal model which represents the dimensions of organizational flexibility as it has been proposed by Volberda. This process helps us to obtain prior qualitative insights of the research questions that have been raised as the main motivation of our work and help us to test the hypotheses which we expect to evaluate through formalization and validation of this previous causal model developed. Based on Volberda's statements regarding both types of strategies (1998:228), some research questions have emerged and have guided the authors to settle the first hypotheses of the research. Since these strategies imply several dynamic processes, we decided to examine their consequences when the firm is trying to achieve an improvement in organizational flexibility:

Research question 1: Which are the main constraints of both strategies that the company should confront during the transformation journey?

A routinization strategy focused on reducing extensiveness of flexibility mix is needed when the firm has a surplus of flexibility in its managerial capabilities over what the environment is demanding. It implies to introduce stability because its abilities to change the strategy or structure are uncontrollable. Therefore, some resistance to change can be expected mainly because more control will be introduced and the managers do not want extra efforts in bureaucratic. This resistance can stop the adaptation process.

A revitalization strategy focused on improving the responsiveness is needed when the organizational conditions are not adequate to a certain level of flexibility mix, and they need to be redesigned. Organizational reaction to changes when revitalization policies are implemented also arises due to the fact that past practices need to be questioned and totally new values and norms are required. It could limit the success of the transformation process in organizational design when the resistance to change is not effectively addressed.

Research question 2: Do the expected results on organizational flexibility change occur at the time required or expected?

To achieve the desired form by putting the focus on extending the flexibility mix in a revitalization strategy, will imply to concentrate the efforts on identifying which of the managerial capabilities needs to be un-learned and which ones need to be created for an effective adaptation to environment. This process could involve too much time between the identification and the development of such capabilities and it will delay the transformation journey.

A routinization strategy characterized by reducing the organizational responsiveness level implies a process of tightening the organizational design. There are many initiatives for new research that they can not be implemented because there are not clear administrative structures and/or shared culture, together with the opportunistic behaviour of individual researchers, resulted in a lack of decisiveness regarding research priorities, a fragmented structure and a loose constellation of various subcultures. This process represents several pressures to change towards introducing more routines, more planning and control systems and process regulations and more shared company cultural values.

In the following section of the paper, we consider the research design used to seek out answers to our study questions about the dynamic processes involved in the transformation strategies about organizational flexibility proposed by Volberda (1998).

A CAUSAL MODEL IN ORGANIZATIONAL FLEXIBILITY

A preliminary causal diagram has been developed based on Volberda's theory following the methodology explained in Sastry (1997). Within the Systems Dynamic field, one the most cited work within studies in strategy and organisational change has been Sastry's research. She develops a theory testing environment and analyses the Tushman and Romanelli theory of punctuated change (Tushman and Romanelli, 1985). Sastry (1997) studied discontinuous or punctuated organizational change by modelling organizational change as a function of organization environment fit and of trial periods following reorientations during which the change process is suspended. Her findings suggested a number of ways in which organizations can fail to manage strategic change successfully. Based on her development, the first stage of this paper is to identify the

main variables of the model by interpreting Volberda's theory. To accomplish with the objective of this research, we first chose 'organizational flexibility' as measure of the system behaviour. And, to define it, some variables from Volberda's theory were categorized as endogenous to the model, such as extensiveness of flexibility mix (which represents the actual combination of managerial capabilities) and responsiveness (which represents the organizational design conditions). In addition, we tried to modelling the interrelationships between these variables and others out of Volberda's framework, but valuable enough for the causal model because they represent some risks indentified by Volberda.

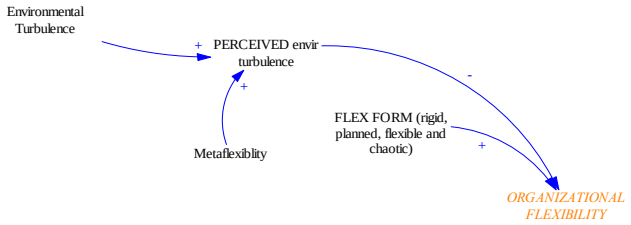
Other variables were considered as exogenous to the model, such 'environmental turbulence' (which represents the flexible form required by the environment considering turbulence environment). According to Volberda, in hypercompetitive environments is most adequate a flexible form to be ready for the changes while in a stable environment the planned form is enough to cope with the competence. But this variable is out of the control of the manager and therefore, it has been considered as an uncertainty source in the model.

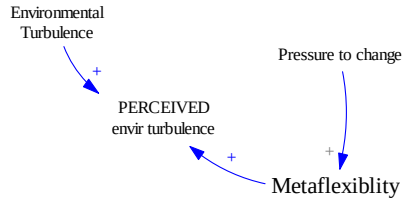
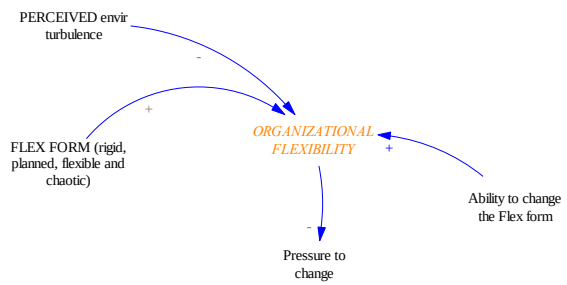
During the enterprise life-cycle, managers are confronted with a continuous adaptation to the environmental turbulence and we aim to represent the transformation processes that are needed. We decided to represent organizational behaviour by a suitable combination of extensiveness of flexibility mix and the adequate organizational conditions (responsiveness) considering the changes in the environment.

Identifying Constructs

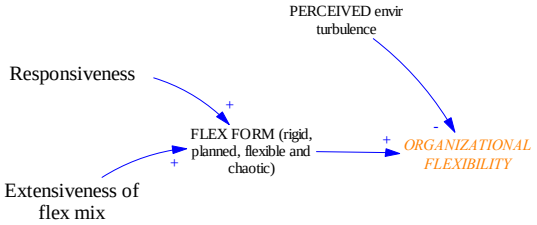
We built the simplest possible model that captures the dynamics of organizational change and their impacts on the firm's ability to achieve the required flexibility/adaptation. We started the process focusing on the main blocks of Volberda's framework/theory as constructs, then identifying the statements describing constructs and finally, founding relationships between constructs. Similar to Sastry's classification of categories (Sastry, 1997: 241), Table 2 presents the main relevant statements for our causal model (by conducting a textual analysis of Volberda´s book, 1998). The table contains four data entries per each variable (construct) defined in Volberda's framework: its categorization within the causal model; qualitative descriptions of the pattern of behaviour of each variable; their structure and relationships with the others variables; and, we identified the range of potential values each variable can take along moving towards different typology of flexible forms. Some of these variables are exactly cited in Volberda's research but this identification process has allowed us to categorize others variables which are significantly relevant to the model and they are not included in Volberda's framework. New variables, such as 'Ability to change' and 'Resistance to change', have been added to the model since they are also involved in the organizational behaviour (Table 3). Although Volberda does not deal with them as deeply as he made with other constructs, their interaction and evolution over time are cited in the text. We decided to include them since we considered they will be valuable for further research in the formalization process and they will allow us to test the consistency of Volberda's theory. In a further step of the research, we aim to use the qualitative descriptions of the pattern of behaviour that Volberda's theory explains, to make predictions against which we would test model behaviour.

Table 2 – Textual categorisation of Volberda´s theory statements

Variable	Definition	Structure/Relationship	Potential values
Environmental turbulence	The level of turbulence in the environment determines the level of organizational flexibility the environment requires. Environmental turbulence is measured by the dynamism, complexity and unpredictability of changes (1998: 191)	'Environmental turbulence' is an exogenous variable and influences positively over 'Perceived environmental turbulence'. Managers use to perceive the changes in the environment above the real situation. As the environment changes (the competence forces increase or decrease), the actual 'Flexible form' will not be optimal (there will be a surplus or deficit of flexibility). That means the capacity of the firm to achieve 'organizational flexibility' will be affected.	As an exogenous variable, we selected the following values: '1' - Non-competitive: static, simple and predictable; '2' - Complex/Dynamic (moderately competitive): dynamic and/or complex, but not unpredictable. '3' - Hypercompetitive: dynamic and/or complex, but most of all unpredictable. '4' - Extreme turbulence: very dynamic and/or complex, and fundamentally unpredictable.
Perceived environmental turbulence	We decide to add this variable to model which represents how the managers understand the characteristics of the environment the firm is confronted to. *"Many organizations perceive their environment as highly turbulent, while in fact they are confronted with a great number of small changes which are largely predictable (1998: 186-187)"*	How the manager interprets the dynamism, complexity and uncertainty of its environment, will influence on the management decision regarding a transformation process. 'Perceived Environmental turbulence' changes positively when the environment turbulence increases, because managers usually interpret the dimension of the changes more than the reality of the environment turbulence. If 'Perceived Environmental turbulence' rises (and the actual flexible form does not vary), the 'Organizational flexibility' will decrease due to a gap between the actual 'Flexible form' and what the environment requires. The changes on 'Metaflexibility' level will allow better understanding the dimension of environmental changes and consequently the perceived turbulence environment will change. By increasing absorptive capacity, the environmental turbulence perception improves. 	Organization's assessment of environmental turbulence.

Metaflexibility	This variable represents the **range of activities in the information gathering** process relevant to the firm in order to control the environmental turbulence the firm is confronted to. According to Volberda (1998: 198*): "This so-called metaflexibility can be viewed as management's supporting monitoring system or learning system, which engages in deutero learning".*	Some times, the enough change path* might comes from varying firstly how the firm performs "deutero-learning" activities which implies scanning the environment and trying to influence on it (1998: 239). If there is a need to improve organizational flexibility, 'Pressure to change' will rise and boost 'metaflexibility' allowing the firm to control the magnitude of environment variability.  	According to Volberda, values of this variable can range from 1 to 7. The score for 'metaflexibility' depicts the extensiveness of intelligence gathering activities of managers, aimed at learning about changes in the environment and the optimal flexibility profile.
ORGANIZATIONAL FLEXIBILITY	This variable measures **how well the organization matches** the actual flexible form with the required flexibility levels by its environment. According to Volberda (1998: 204) *"…the sufficiency of flexibility mix (managerial task) and the design adequacy of organizational conditions (design task) must be continuously matched with the degree of the environment turbulence to achieve effective flexibility"*	'Organizational flexibility' can change because the difference between what the environment demands and the actual flexible form has changed. 'Pressure of change' rises when levels in Organizational Flexibility decrease. This decrease represents that a transition strategy is needed. Positive changes in 'Flexible form' represent an increase of extensiveness of flexibility mix and organizational responsiveness and subsequently, the level of organizational flexibility increases to the desired level because management has effectively executing both tasks. However 'organizational flexibility' is also controlled by the firm's ability in controlling change contrary forces; so this variable can improve or not when 'Ability to change' has a positive change or not.  	When actual Flexible Form is matching with the environment requirements, this variable takes the value '0'. If the firm is not adapted efficiently to the environmental characteristics this variable decreases below '0' or increases over '0'. And, since this will be a continuous adaptation process, the firm must seek to increase/decrease this value.

* Sometimes, a change trajectory of flexibility mix or organizational design is not needed. Instead, the firm should increase its knowledge of the environment.

Flexible form	This variable represents **one of the four types of Volberda's typology**. According to Volberda (1998: 211) *"Each type represents a particular way of addressing the flexibility paradox of change vs. preservation, and some types are more effective than others."*	'Flexible form' is determined by the combination of two variables: 'Extensiveness of Flexibility mix' and 'Responsiveness' and it changes when this combination varies a long the enterprise lifecycle. When both variables increase, Flexible Form moves along the right side of the figure (Volberda's typology-Figure 2) and, if they decrease this variable moves along the left side of the figure due to routinization or revitalization strategies. Consequently, 'Flexible form' will affect positively to 'Organizational Flexibility'. Variations in Flexible form can reduce the shortfall with respect to Perceived environment turbulence (due to deficit or surplus of flexibility) and therefore, the organizational flexibility will be closer to the optimal value.  	According to Volberda each of the flexible forms has an associated number. We relate a number to each form: '1' – Rigid form '2' – Planned form '3' – Flexible form '4' – Chaotic form If the firm is not achieving the optimal adjustment of both tasks, this variable will differ from each of these numbers. And, since this will be a continuous adaptation process, the firm must search for the value required by the environment.
Extensiveness of Flexibility Mix	This variable represents how the firm performs its **managerial task** of flexible capabilities. *"In deciding which capabilities the organization should develop or unlearn, the management has to compare the flexibility mix of the new flexible form with that of the actual form. ...management has to vary its flexibility mix for the remaining environmental turbulence ..."* (1998: 239-240).	Values on 'Extensiveness of flexibility mix' represent how the firm manages its flexibility mix. When a surplus o deficit in the flexible capabilities appears, it might imply a movement need and this movement (referred to change the volume and variety of dynamic capabilities) comes from 'Pressure to change' and directly affects to what Volberda's typology of flexible forms is representing, 'Flexible form'.  	According to Volberda, the values of this variable can range from 1 to 7. Each score will represent: preponderance of Operational flexibility; preponderance of Structural flexibility; preponderance of Strategic flexibility. If the firm is not achieving the optimal adjustment, this variable does not match to which environment requires. And, since this will be a continuous adaptation process, the firm must vary the actual combination of flexible capabilities.

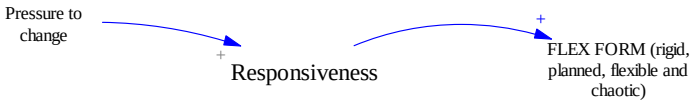
Responsiveness	This variable represents the adequacy of organizational design conditions. The concern here is with the **manoeuvrability** of the organization, which depends on the creation of the right conditions to foster flexibility; that is, appropriate effectively exploit the flexibility mix. *"Designing the appropriate organisational conditions requires identifying the type of technological, structural or cultural changes necessary to ensure effective utilization of managerial capabilities."* (1998: 240).	Whenever a surplus o deficit in the responsiveness appears, it might imply a movement necessity and this movement (referred to change technological, structural and cultural conditions) comes from 'Pressure to change' and directly affects to what Volberda's typology of flexible forms is representing, 'Flexible form'.  	According to Volberda the values of this variable can range from 1 to 7. Each score will represent: (1) – ROUTINE Technology, MECHANISTIC structure and CONSERVATIVE culture. (2) – Medium level in ROUTINE Technology, MECHANISTIC structure and CONSERVATIVE culture (3) – NON-ROUTINE Technology, ORGANIC structure and INNOVATIVE culture.

Table 3 – New variables added to Volberda's theory statements

Category	Definition	Structure/Relationship	Potential measures
Resistance to change	This variable represents the extent to which the organizational participants disagree with incremental or radical changes which will alter their actual work conditions in the organization. It affects to the firm's ability in activate the change strategies needed to achieve Organizational Flexibility. According to Volberda: *"Organization members have to express their complaints with current state if they are to lose their inertia. In this connection, the discrepancy between the required and actual flexibility can be used to create dissatisfaction." (1998:242-243)*	This variable mediates between **'Pressure to change'** and **'Ability to change'** variables. Higher levels of pressure to change could imply significant changes on work routines strongly established in the firm. Depending on the magnitude of change process, it will be expected more or less resistance. When resistance to change is highly enough, organizational managers are less able to recognize and respond to the need for a change.	Measurement of managers' behaviour to future changes: - strong proclivity for low risk projects (with normal and certain rates of return) - owing to the nature of the environment, weakness to explore it gradually via careful, incremental behaviour. - weakness when confronted with decision-making situations involving - strength of norms and organizational culture.
Pressure to change	Pressure to change is a stock that represents the accumulation of pressures to change the organizational form when the desired is far from the actual form.	If the firm does not achieve the optimal combination required by the environment, Organizational flexibility will change. 'Pressure to change' rises because a change strategy will be needed (routinization or revitalization strategy) due to Organizational Flexibility is decreasing.	Decrease on new developments to the market, decrease on market share, chaos when the strategies are implemented.
Ability to change	Ability to Change represents the firm's ability to achieve the optimal value of Organizational Flexibility. This variable is based on firm's capacity to transmit to the members involved in the transformation process, how necessary a transformation strategy is and its advantages. To achieve the desired level in Organizational Flexibility is not only needed the adequate movement in the correct moment and with the effective conditions, how to transmit this change is also necessary. According to Volberda (1998: 241) *"…flexibility improvement must involve more than a once-and-for-all change; flexibility improvement has to facilitate ongoing processes of variation in the flexibility mix and organizational conditions in order to overcome the routinization and chaos."*	This variable is determined by **'Resistance to change'** and affects positively to **'Organizational Flexibility'.** When resistance to change increases the firm has more difficulties to develop an effective change trajectory and 'Ability to change' decreases. The necessary condition to achieve the desired level in Organizational Flexibility comes from the managerial ability to control the opposite forces which certainly will appear (for instance: resistance to change) in order to impose the changes efficiently	Engagement or participation levels (compromise by the components) the top-managers are able to transmit to the participants, giving time and opportunity to disengage from the state actual.

Representing a dynamic feedback theory of Volberda's framework

The next step before formalizing the model was to create the first causal model which relates the variables identified as constructs (Table 2 & 3). The result was a set of interlinked feedback loops that represent the transition processes from one to other organizational mode of Volberda's typology.

According to Volberda: *"On the basis of these two central building blocks of our framework – the extensiveness of flexibility mix and the controllability of the organizational conditions – many organizational forms are possible for coping with changing levels of competition."* (1998:211). In this causal model, how the firm resolves the flexibility paradox means that management ought to match both tasks as a continuous process to achieve the desired form while the environment evolves and is produced by two balanced and one reinforcing feedback loops. However, change resistance forces decelerate these firm's efforts as a result of a self-reinforcing process. The variable 'Organizational Flexibility' represents the way the firm cope with the balance required between two tasks and environment characteristics. The relationships between the variables described in Table 2 and 3 are showed in the causal model in Figure 3.

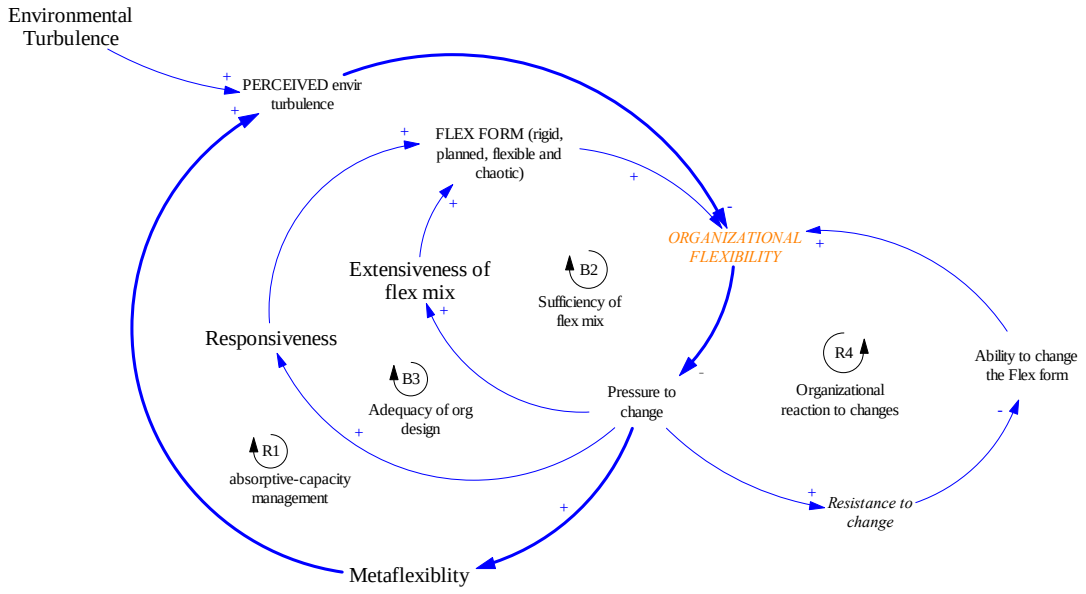


Figure 3. Causal model of organizational flexibility

This figure contains the key dynamic elements in the model. Overall, the system is quite simple: the 'Flexible Form' is compared with the environmental requirements to define if the company is achieving an optimal level of organizational flexibility. In order to achieve it, how the firm combines Extensiveness of Flexibility mix and Responsiveness in line with the Environmental Turbulence[3] determines the position of the firm along different flexible modes in their lifecycle, as Volberda states: *"In this typology, each ideal type is a result of a deliberate or emergent configuration strategy of management*

[3] Volberda (1998: 211): *"…the sufficiency of flexibility mix (managerial task) and the design adequacy of organizational conditions (design task) must be continuously matched with the degree of the environment turbulence to achieve effective flexibility"*

regarding the composition of the flexibility mix and the design of the organizational conditions" (1998: 211). The general causal model contains different feedbacks loops, which can be divided to four distinctive cycles: first loop is related to manage the absorptive capacity; second loop occurs when firm develops its managerial task influencing on extensiveness of flexible capabilities; third loop occurs when firm develops the organizational design task loosening or tightening organizational conditions depending on the trajectory of change; and, fourth loop represents the opposing strengths to change that come from organizational participants.

The variable Organizational Flexibility represents if actual 'Flexible Form' is far from the optimal combination following Volberda's recommendation. If Organizational Flexibility takes values different than '0' means that the firm is not doing the matching process in an effective way and subsequently, it will activate the pressure to change. The type of adjustment moves the firm towards the desired level of flexibility and the cycle starts over as Volberda recommends *"…firms must strike balances if organizational forms are to remain vital. Yet doing so means that firms must reconcile the conflicting forces of change and preservation"* (1998: 210). The accumulated pressure to change addresses the firm to the desired form choosing the corresponding trajectory of change: to create or deactivate dynamic capabilities (activate a sufficient flexible mix), re-design the organizational conditions to provide adequate potential for flexibility and/or to modify the deutero-learning capability. These three components/tasks must be continuously matched with the degree of environmental turbulence as Volberda stated *shifts may occur and in the level of competition and the composition of the flexibility mix and the design variables of organizational conditions must vary correspondingly* (1998: 210).

Generally speaking, the adjustment process presented above represents Volberda's fundamental basis. Next, we present the process in more detail. According to Volberda (1998: 198) the adaptation process, starts identifying whether the firm must adapt to change or influence change. This identification process is facilitated by its absorptive capacity and reflective learning ability (so called *"deutero-learning abilities by which management accumulates and dissipates flexible capabilities"* – (1998: 201)). When managers are ignoring relevant environmental data, they must try to reduce the level of environmental turbulence the firm is confronted with by increasing its absorptive-capacity (metaflexibility) (1998: 239). The process starts with the **'absorptive-capacity management' (R1)** which implies to modify the absorptive capacity the firm develops, presented in the first loop of Figure 4. Managers need to assure that the perceived turbulence is as far as it concerns before deciding to implement a change strategy. This circumstance occurs, for example, when the firm perceives a more dynamic, complex and unpredictable environment than the real situation, it is no need to change the flexible form; it might be enough to reduce the environmental turbulence the firm is confronted with ('perceived turbulence environment').

The structure forms two important feedback loops which represent Volberda's statement: *"At a higher level of the organization there must therefore be a reflective capacity to effectuate an appropriate composition of the flexibility mix and design of the organization* (1998: 198). When the necessity of change arises, managers should correctly interpret if it is a real necessity and which change strategy should be implemented. That means, if organizational flexibility takes values non-desired, the adjustment effect forms the Absorptive-capacity Management loop, a reinforcing loop

through which managers interpret correctly which the source of the necessity to change is, by increasing information activities. Changes in metaflexibility allow the managers to adjust the perceived environmental turbulence and to understand the real divergence in organizational flexibility. Subsequently, managers will activate the corresponding strategy to move the flexible form (closing the positive Close the Flexibility Gap loop).

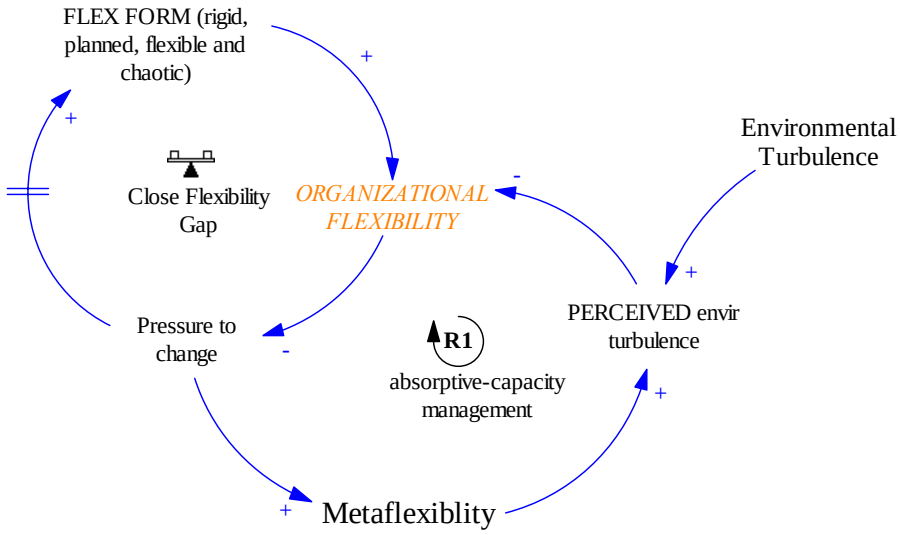


Figure 4. Absorptive-capacity management

From now on, the positive loop which represents the adjustment to move the firm towards the desired form is going to be divided in the two corresponding blocks of Volberda's framework (see Figure 5).

First, the managerial task shapes the **'Sufficiency of Flexibility Mix' loop** (**B2**), a balancing loop which balances the organizational flexibility through the adjustment of extensiveness in flexibility mix confronting with the remaining environmental turbulence (*the sufficiency of managerial capabilities*) after a delay. In order to '*neutralize this part of remaining environmental turbulence'* (Volberda, 1998: 240), which implies that the firm may become less vulnerable to changes, the firm can actively influence in the competitive forces by creating the adequate combination of flexible capabilities (preponderance of operational, structural or strategic flexibility). Variations in firm's extensiveness of flexible mix will lead the firm to be closer the desired level in organizational flexibility. However, this process does not start immediately, it can suffer a delay. According to Volberda, there is a time lag between the moment of perceiving the gap between flexible capabilities (*actual flexibility*) and competitive forces (*required flexibility*) and, the moment of reacting. It is called as 'Implementation Time' - *"the reaction or implementation time of these capabilities is a factor which management has to take into account. ... the time which elapses between confronting the discontinuity and responding to discontinuity…. The organizational barriers in technology, structure and culture can influence this implementation time (Volberda, 1998: 201)".*

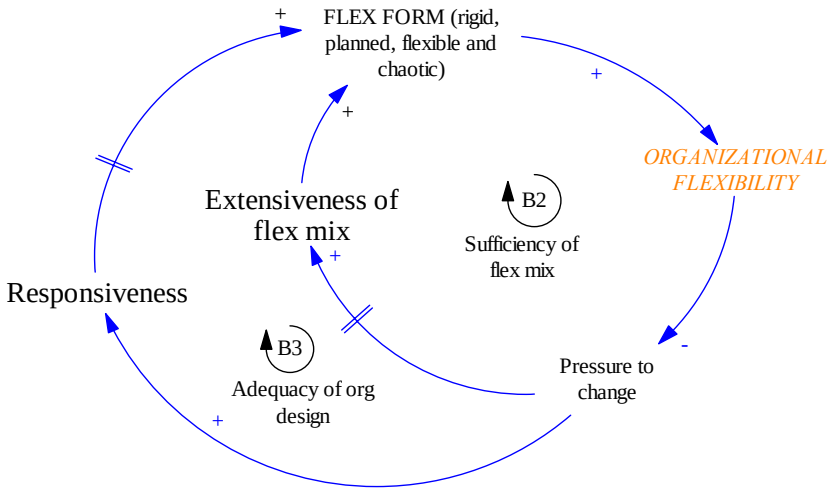


Figure 5. Sufficiency of flexibility mix and adequacy of organizational design

At the same time, the third balancing loop '**Adequacy of Organizational Design'** (**B3**) represents the second movement of change towards the desired flexible form (Figure 5). It represents the organizational redesign process and implies to select adequate design conditions for the actual composition of flexibility mix as Volberda mentions: *"...to activate a sufficient flexibility mix, the design of the organizational conditions must provide adequate potential for flexibility"* (1998: 204). According to Volberda, organizational redesign is related to develop new technologies, transforming structures and intervening in organizational cultures (Volberda, 1998: 240). When these changes are implemented, the organizational flexibility will be adjusted due to the movement of the flexible form although, it can be effective in a time lag. To redesign organizational conditions such as, tightening structural conditions (standardization and professionalization of processes and institutionalization of information processing and decision making) or loosening cultural conditions (a more open, external orientation and increased tolerance for ambiguity), may suffer a delay.

The transition process from one type to another may or may not be effective if the firm does not foster the need of proposed changes around the company. According to Volberda, *"Organization members have to express their complaints with current state if they are to lose their inertia. In this connection, the discrepancy between the required and actual flexibility can be used to create dissatisfaction."* (1998: 242-243). So, we decided to add to Volberda's framework the variable 'resistance to change'. It is generated by the fact that they are taken roots to some values, norms, customs, etc in the day to day work and some of them react to these changes. In addition, the variable 'Organizational Flexibility' is not only as a function of the company ability in matching the flexible capabilities management task and the organizational redesign task, also as a function of how the firm can make these changes in a effective way. Therefore, we added 'Ability to change' to represent the connexion between resistance to change and organizational flexibility and they are included in the fourth positive loop denoted by **'Organizational reaction to changes'** (**R4**) (Figure 6). A larger pressure to change may increase resistance between organizational staff (particularly between managers), reducing firm's ability to establish the changes and causing to not achieve the desired

value in organizational flexibility. So, new efforts in managerial and organizational design tasks will be needed. When resistance to change is high enough, organizational managers are less able to recognize and respond to the need for a change.

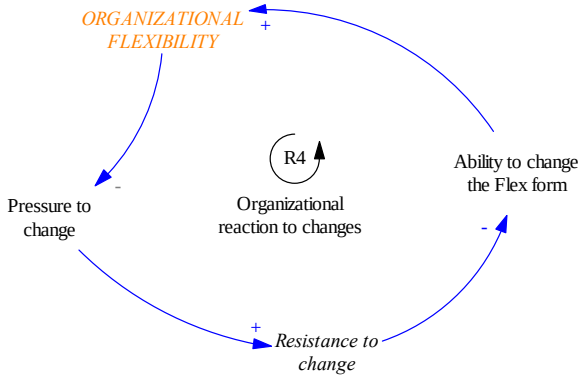


Figure 6. Organizational reaction to changes

DYNAMIC BEHAVIOUR OF ORGANIZATIONAL FLEXIBILITY

After describing the main blocks of Volberda's framework through a dynamic perspective, the next step concerns to describe how the model's formulations and outputs are to be evaluated. Volberda develops two strategies which describe how organizations deal with the flexibility paradox over time: *"From this typology of organizational forms, trajectories of organizational 'success and failure' in meeting various levels of competition are obtained"* (1998: 210). Organizational flexibility as a dynamic concept needs to be evaluated considering its overall conduct throughout time. That allows us to analyze how the firm is sustaining the corresponding adaptation during the time and to be ready to face with changes in the future. The complexity of Organizational Flexibility needs to be understood and managed taking into account the multiple interrelations between the range of variables which forms each dynamic sub-system: absorptive-capacity, extensiveness of flexibility mix and adequacy of organizational design. With this first causal model we aim to gain a deeper understanding of the transformation process, that means its dynamics, as well as various constraints that may occur along the journey towards organizational flexibility.

Volberda's framework provides to managers the necessary guidelines to each transformation strategy which are supposed to be successful under certain conditions. For this work, we aim to anticipate, at this stage conceptually, some barriers to the success of those transition phases and those variables which leverage the system considering specific dynamic hypotheses to each of the strategies which have emerged from author's research questions. In the following section we present two examples of the transition strategies: (1) a routinization strategy needed when a transition from 'chaotic form' towards 'flexible form' is required and, (2) a revitalization strategy from 'flexible form' towards 'planned form'.

A routinization strategy: chaotic towards flexible form

According to Volberda, the transition from Chaotic to Flexible form (Figure 7) requires a trajectory of *strategic focusing* (Volberda, 1998; 214) in order to lift the organization from a chaotic state of random, disconnected and uncoordinated impulses towards a

more flexible form. Volberda gives an example of this trajectory: *"…when firm's attention is directed towards reducing the level of competition, a natural trajectory of routinization is most likely"* (1998: 210).

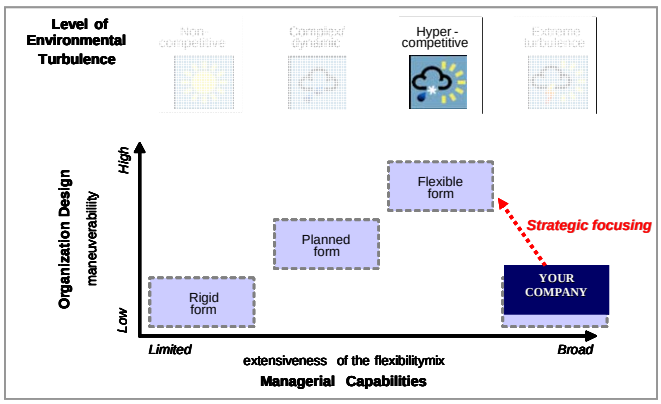


Figure 7. Routinization Strategy (van der Weerdt & Volberda, 2006)

A good example of this state is when innovative organizations are in their earliest stage of activity and they have an apparent growth and success in scenery of perfect competition. The organization is controlled by the environment and can push it in any direction (Volberda 1998; 214) in case of competence increases; they run the risk to loose this initial success if they do not adapt to the environment (Figure 8).

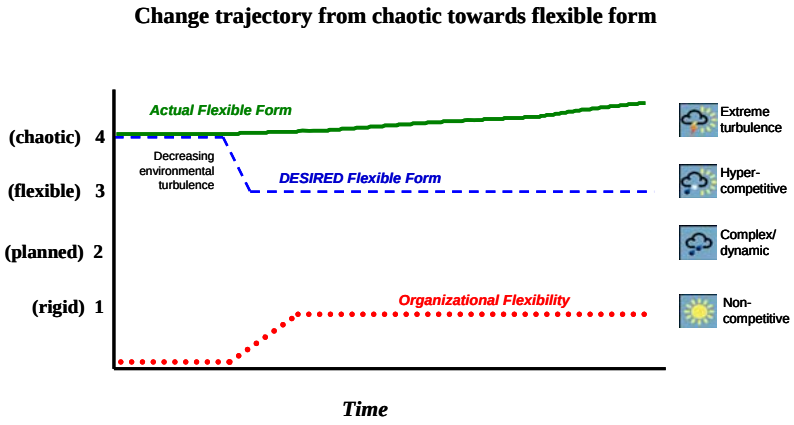


Figure 8. Routinization strategy – movement from chaotic towards flexible form

In that scenario, decreasing levels of environmental turbulence boosts Organizational Flexibility over the value '0' due to the existence of a flexibility gap: actual flexible form is far from the desired form (flexibility surplus in a hyper-competitive environment). Both tasks, extensiveness of flexibility mix and organizational responsiveness are superior to what the environment requires; the firm has accomplished competitive advantage from new opportunities in the market and needs to sustain it along the enterprise lifecycle. A routinization strategy is the most adequate to move the firm towards left side of the figure (Figure 7) denoted by 'strategic focus' strategy. Since value in organizational flexibility is over 0, the 'pressure to change' is

activated and affects to the two main tasks described. That strategy implies three movements of change needed following statements of Volberda's theory and some dynamic hypotheses emerged from each one according to the research question developed in this paper:

- In front of a surplus flexibility scenario the first stage comes from focusing on the adjustment of absorptive-capacity: to reduce the level of metaflexibility means to correctly identify the capabilities created within unregulated business. The perceived environmental turbulence will be adjusted to the real competitive scenario, now it is less dynamic and complex, although it remains unpredictable. In addition, as Volberda point out, to control metaflexibility will allow the firm to retain a sense of identity and continuity over time (1998: 217).

The innovation initiatives need coherence and control guarantying they focus on clear market needs by concentrating firm's absorptive capacity, subsequently, it may have a negative effect first generating some resistance from the organization staff and secondly, reducing any exploration initiatives. Too much reduction on metaflexibility can introduce an excess of rigidity in deutero-learning activities and can lead the organization to the planned form instead to flexible form.

Dynamic Hypotheses 1: *the company efforts on adjusting the absorptive capacity (metaflexibility) when it tries to achieve the 'flexible form' in a routinization strategy can push the firm towards non-desired rigidity; it run the risk to loose any initiative for exploration due to an excess of activities on process and control too much information.*

- The organizational flexibility still remains over the value '0'; the second step of a *strategic focusing* strategy implies intervening in the extensiveness of flexibility mix by reducing a surplus of flexibility and uncontrolled capabilities. In this process the firm needs to learn how to implement those market opportunities that has been discovered in the chaotic form (Volberda, 1998: 217). In addition, the chaotic form lacks of administrative stability due to the deliberate tendency of managers not to pay attention to the administrative structure (Volberda, 1998: 214). So, too much resistance could be expected when some routines are established and some process regulations are implemented.

This strategy of change can lead to severe and disruptive administrative problems. Hence, the main constraint for the effective adjustment in organizational flexibility level is that the routinization efforts on extensiveness of flexibility mix will boost some resistance to change (the managers of chaotic form do not want extra efforts in bureaucratic statements) which stops the adaptation process and the firm is more open to loose their competitive advantage.

Dynamic Hypotheses 2: *To achieve the transition towards the 'flexible form' throughout company efforts on reducing the level of extensiveness of flexibility mix can boost some resistance to change which can stop the adaptation process. The firm is more open to loose its competitive advantage due to excess of administrative structures.*

- The third stage of this change trajectory is related to the adequacy of organizational conditions to the actual level of extensiveness of flexibility mix. The pressure to close the gap can be addressed reducing responsiveness which means *tighten* the

organizational design changing the organizational conditions, not only technological both structural and cultural characteristics (Volberda, 1998: 217).

These change policies are represented by a process which implies to introduce more routines in technologic characteristics (less flexible and uncontrolled), to introduce more regulation processes changing structural design towards a more mechanistic one and the pressure to change cultural characteristic with a more conservative view. The organizational re-design needed by entrepreneurial firms to gain stability while competence levels decrease, will require extra time that delays the desired results in tightening the technological level and subsequently, in organizational flexibility level.

Dynamic Hypotheses 3*: When a routinization strategy is introduced to move the firm towards 'flexible form' by putting the company's efforts in decreasing the responsiveness level (tightening organizational design) will imply execute more control/stability activities. Extra time will be needed to transmit efficiently to the organization the need of change.*

A revitalization strategy: planned towards flexible form

A transition from planned towards flexible form (Figure 9), named by Volberda *'entrepreneurial revitalization'*, can be addressed by a revitalization strategy (1998: 219). This strategy is needed when a flexibility deficit arises as a consequence of higher levels of uncertainty in environmental turbulence and planned form is confronted with hyper-competition (Volberda, 1998: 221).

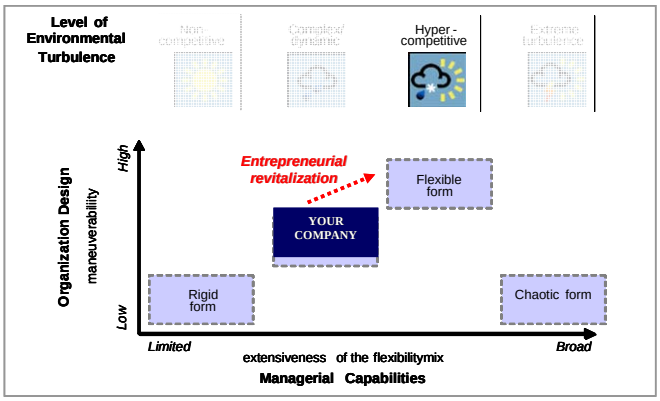


Figure 9. Revitalization Strategy (van der Weerdt & Volberda, 2006)

The strong process regulations and tight planning and control systems characteristic of planned form, limit to discover new competitive advantage and their survival is threatened if it does not adapt when the environment has become more dynamic, complex and strongly unpredictable (Figure 10).

Change trajectory from planned towards flexible form

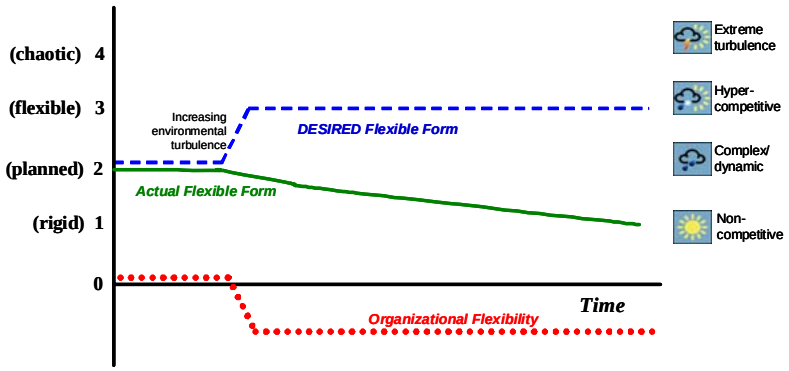


Figure 10. Revitalization strategy – movement from planned towards flexible form

When the environmental turbulence increases, the Organizational Flexibility fails due to higher difference between actual and desired flexible form. That means that organizational flexibility level takes values below '0' and the pressure to change will be activated. The trajectory of change implies moving the firm to the right side of the graph (Figure 9). Both tasks, extensiveness of flexibility mix and organizational responsiveness are inferior to what the environment requires: since competency levels are increasing, the firms will needs to achieve new market opportunities. This strategy implies three movements of change needed and are explained in the following statements:

- According to Volberda (1998: 221) the first stage of this process is related to increase the level of absorptive-capacity. The firm lacks of a superior deutero-learning capacity which allows the firm to help the firm to improve its perception of environmental turbulence in this scenery and to generate new knowledge to access to new market opportunities.

To gain a successful level of deutero-learning depends largely on the time which elapses between confronting discontinuity and responding to it (Volberda, 1998: 198). Volberda pointed out some of the factors which may cause this retardation time: the time required for observing, interpreting, and transmitting the information to the responsible managers ('systems delay') or the time consumed by management for assessing the intensity, frequency and permanence of these changing competitive forces ('verification delay'). When the firm is adapting to a higher competence levels, it should firstly activate the absorptive-capacity in order to improve its knowledge about the environment and influence over it. However, extra time could delay the reaction to change from the managers.

Dynamic Hypotheses 4: *the company efforts on adjusting the absorptive capacity (metaflexibility) when tries to achieve the 'flexible form' in a revitalization strategy can delay the transition process; the firm runs the risk to loose the sufficient transformation due to the time lag between appearing the environmental changes and decision taking about the optimal strategy of change is highly enough.*

- Putting the focus on extending the flexibility mix by the improvement of structural and strategic level of flexibility is the second step of revitalization process. This strategy implies to concentrate the efforts on identifying which managerial capability needs to be un-learned and which ones need to be created for an effective adaptation to environment. Such efforts push the organization towards the creation of new competitive advantages better suited to hypercompetitive environments

This process usually takes too much time which delays the transformation journey. The company efforts towards extending the level of extensiveness of flexibility mix will delay the desired results because to effectively identify what is demanding the environment implies too much time.

Dynamic hypothesis 5*: In a revitalization strategy, the company efforts on enlarging the level of extensiveness of flexibility mix in order to achieve the 'flexible form' can delay the desired results; a time lag can appear when the company tries to effectively identify and activate the flexible capabilities the environment is demanding.*

- When the firm is addressing higher levels of competence, an organizational re-design is needed to adapt the firm to the new capabilities created (a new extensiveness of flexibility mix). The consequent re-design is accomplished by a strategic policy of loosening technological, structural and cultural conditions. A revitalization strategy implies that "*past practices need to be questioned, new assumptions about the organization have to be raised, and significant changes in strategy have to be considered"* (Volberda, 1998: 242).

The transition process should be accompanied by a development approach to be as successful as it is expected (Volberda, 1998: 241). A development approach implies to focus on those design variables that facilitate learning processes and new developments for continuous flexibility improvement (such as less process regulations and more innovative culture). Therefore, much resistance can be expected against efforts to revitalize organization due to totally new values and norms are required and past experience may not provide any advantage.

Dynamic Hypotheses 6*: When a revitalization strategy is introduced to move the firm towards 'flexible form' by putting the company's efforts on improving responsiveness level (loosening organizational design) will imply too much effort to overcome resistance to structural and cultural changes due to higher levels of inertia can be found.*

CONCLUSION AND FURHTER RESEARCH

We have developed a causal model of Volberda's theory following Sastry (1997) approach. Based on the content analysis of the theory, we complete Volberda's theory including variables that are important for organizational change but they were not included in the original text. We contribute towards a more robust organizational flexibility theory by uncovering flaws in the original development. Then, we developed a causal model of Volberda's theory to analyse the performance over time of organizations under change processes. The model allows us to elaborate dynamic hypotheses related to organizational change that complement Volberda's model. Dynamics hypotheses developed by the authors support Volberda's model as they

illustrate the behaviour implied in his model but also, complement the transition guidelines proposed by Volberda.

We are now starting to develop a system dynamics model and gathering data to validate quantitatively our dynamic hypotheses. Hypotheses that contradict Volberda's theory could be discovered in further steps of this research. By developing some case studies of enterprise flexibility based on blocks of Volberda's framework, some contradictions could be researched in the simulation stage. With the simulation results some management suggestions can be derived, and more, this result can show that System Dynamics is also an effective research way in organizational flexibility research.

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