

Organizational Resilience in Practice: the Viable System Model

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Abstract: The interest in how to build resilient organizations is increasing in the last two decades. However, there is no formal and accepted framework yet. In this paper, we argue that the application of the principles of the Viable System Model (VSM) improves organizational resilience. We also argue that the VSM constitutes a valid framework to design resilient organizations.

Keywords: Organizational resilience; Viable System Model; Organization design;

1 Introduction

The study of resilience is gaining attention in the research agenda. A recent search in Scopus showed that there are more than 71.000 documents talking about resilience, resilient or resiliency. More than 62.000 of them have been written since the year 2.000. The number of papers related to resilience is increasing every year.

Resilience has been studied in different research fields, including ecology, psychology, disaster management, organization management, sociology, engineering, etc. This is probably why there is no common and widely accepted and unified definition of resilience. Even within the same area, different definitions coexist (Bergström et al. 2015). Despite those areas seem to be isolated and independent from each other, they are not.

Rose (2004) focuses on economic resilience and proposes that resilience takes place at three different levels: microeconomic, mesoeconomic and macroeconomic. At microeconomic level, we care about the resilience of the individual behav-

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our of firms, households and organizations. At mesoeconomic level, we focus on the resilience of an economic sector, individual market or cooperative group. Finally, at the macroeconomic level, we combine all individual units and markets. At macroeconomic level, the whole is not just the sum of the parts due to interactive effects of economy. Following the perspective presented in Rose (2004), we suggest that the different research areas studying resilience can be linked together. All of them study resilience at one of the above-mentioned levels. For example, to have a resilient organization we need to have resilient individuals (Mallak 1998), among other requisites.

Our study focuses on resilience at the microeconomic level, specifically at the level of organizations. At this level, several works have proposed principles that we should follow to develop resilient organizations and the characteristics a resilient organization should have.

For example, Mallak (1998) proposed seven principles to create a resilient organization: perceive experiences constructively, perform positive adaptive behaviors, ensure adequate external resources, expand decision-making boundaries, practice bricolage, develop tolerance for uncertainty and build virtual role systems.

Similarly, Coutu (2002) states that a resilient organization has to face down reality, search for meaning and continually improvise. Dervitsiotis (2004) proposes that a resilient organization has the characteristics of living systems: receptivity from early warning systems, flexibility and capacity of creativity and innovation. We have reviewed more than 200 papers and we have found that these approaches lack a formal framework to create resilient organizations.

The Viable System Model (VSM) (Beer 1981) is a scientific framework based on organizational cybernetics applied to the design and study of organizations and its processes (Pérez Ríos 2012). In the management field, the application of VSM is taking more attention.

A Viable System is a system organized in a way that it is able to survive despite changes in its environment. Armin (2014) has already proposed a framework for resilient management based on the principles of organizational cybernetics. However, he only takes into account one of the principles of the VSM: the recursive character.

Considering the definition of viable system and the aim of resilience (aligned with Dervitsiotis op.cit) we propose that the application of the VSM principles to organizations improves its resilience.

2 The Viable System Model. Application to Organizations and Organizational Resilience

Organizational Cybernetics applies “communication and control” cybernetic principles to the organizations (Pérez Ríos 2010). Here we focus on viability and the VSM because they are the necessary concepts to understand the relation be-

tween the VSM and organizational resilience. A more comprehensive explanation of these concepts can be found in (Pérez Ríos 2012).

Viability is the capacity of an organism to maintain its separate existence (i.e. ability to survive despite changes in the environment). A review of several definitions of resilience (Annarelli & Nonino 2016) points out that, among other characteristics, resilient organizations have to recover from challenges or disruptive events (i.e. survive). Therefore, a resilient organization has to be a viable one.

The VSM establishes the necessary and sufficient conditions for the viability of an organization (Beer 1979; Beer 1981; Beer 1985; Beer 1989). The viability of the organization is related to the existence of a set of systems or functions inside the organization and a set of relations among them and the environment. A shortage in any of these systems or functions due to absence, malfunction, miscommunication, etc. carries pathologies in the organization. These pathologies cause that the organization does not work properly or even disappear. Both the definition of the VSM and the pathologies that organizations face can be found in (Beer 1989; Schwaninger 2009; Hetzler 2008; Pérez Ríos 2008; Pérez Ríos 2012).

Pérez Ríos (2010) classifies organizational pathologies into three main categories:

- a. Structural Pathologies are related to how the organization is structured in relation to the general environment and the various environments that it contains
- b. Functional Pathologies are those related to the adequacy of organizations (at all recursion levels) to the prescription made by the VSM about functional subsystems and their relationships
- c. Information pathologies are related to information systems and communication channels.

3 Conclusions

In this work, we have presented the VSM as a framework to design resilient organizations. As we mentioned above, the VSM establishes the necessary and sufficient conditions for the viability of an organization and a resilient organization has to be a viable one. Therefore, the VSM provides a valid formal framework to design resilient organizations.

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