



Review

Strategic and operational management of organizational resilience: Current state of research and future directions[☆]

Alessandro Annarelli^a, Fabio Nonino^{b,*}^a Faculty of Science and Technology, Free University of Bolzano-Bozen, Bolzano-Bozen, Italy^b Department of Computer, Control and Management Engineering, Sapienza University of Rome, Roma, Italy

ARTICLE INFO

Article history:

Received 31 October 2014

Accepted 4 August 2015

Available online 12 August 2015

Keywords:

Resilience

Organizational resilience

Operational resilience

Supply chain resilience

Cocitation analysis

ABSTRACT

This article uses both a systematic literature search and co-citation analysis to investigate the specific research domains of organizational resilience and its strategic and operational management to understand the current state of development and future research directions.

The research stream on the organizational and operational management of resilience is distant from its infancy, but it can still be considered to be in a developing phase. We found evidence that the academic literature has reached a shared consensus on the definition of resilience, foundations, and characteristics and that in recent years, the main subfield of research has been supply chain resilience. Nevertheless, the literature is still far from reaching consensus on the implementation of resilience, i.e., how to reach operational resilience and how to create and maintain resilient processes. Finally, based on the results of in-depth co-citation and literature analysis, we found seven fruitful future research directions on strategic, organizational and operational resilience.

© 2015 Elsevier Ltd. All rights reserved.

Contents

1. Introduction	2
2. What is organizational resilience?	2
3. Research methodology	3
3.1. Searching and selecting the articles	4
3.2. Analyzing the structure	6
4. Findings	6
4.1. Findings from systematic literature search	6
4.2. Findings from factor analysis	6
4.2.1. Theoretical foundations and applications	8
4.2.2. Implementation, improvement and measurement of resilience	8
4.2.3. Models for resilience	8
4.2.4. Other theoretical perspectives	8
4.3. Findings from multidimensional scaling	9
4.4. Findings from literature outside the core set of papers	10
5. Conclusions	10
5.1. Organizational resilience: a future research agenda	11
5.2. Research limitations	11
Appendix A	11
Appendix B	11
References	15

[☆]This manuscript was processed by Associate Editor Jozefowska.

* Corresponding author.

E-mail addresses: alessandro.annarelli@natec.unibz.it (A. Annarelli), fabio.nonino@uniroma1.it (F. Nonino).

1. Introduction

The environment surrounding organizations increasingly challenges them by posing different threats in various forms from both inside and outside an enterprise's boundaries. Natural disasters, pandemic disease, terrorist attacks, economic recession, equipment failure and human errors are only some examples that help in understanding how many different events can undermine the stability and security of an organization and its environment [17]. Moreover, organizations live and compete in a world that is increasingly interconnected both socially and technologically. Challenges occasionally appear in the form of minimal and (apparently) insignificant uncertainties and offsets, but a little event can create the so-called "butterfly effect" in a wide interconnected network of companies. Consequently, it is currently always more difficult for an organization to be an independent entity and resist, or try to resist, shocks, impacts and disasters while maintaining a competitive position [90].

The ability to resist and respond to a shock (internal or external) and recover once it has occurred is called *Resilience* ([41,153,154]).

Why do some organizations successfully overcome these events, whereas others are not able to do so? What makes it possible for these organizations to withstand and adapt to challenges? What is the role of operations in managing shocks in a resilient view of companies?

Understanding these key issues has become even more important due to the growing number of challenging events that enterprises are facing – the 2001 World Trade Center attacks, the 2004 tsunami, Hurricane Katrina, the 2010 Icelandic volcano eruption, and the 2008–2009 economic crisis, to name a few. Crises of a radical nature, like financial crises or the introduction of a disruptive innovation, certainly undermine companies' survival; but also profound productive and technological innovations of incremental nature and also minor events – sometimes underestimated because their potential harmful is misunderstood – can seriously challenge the organizations' stability and security. This is the case for example of minor problems that could affect a supplier, causing the entire supply chain to slow down: the "conventional disruptions of supply variability, capacity constraints, parts quality problems and manufacturing yields" [161].

These and other events caused enterprises, and more generally the entire universe of management and business, to pay ever more attention to the concept of resilience as applied to financial markets, organizations and their elements, strategies, and to the networks made by organizations – the supply chains. Nevertheless, the common approach until today mainly consisted in planning and building organizational resilience in a defensive and reactive way. But the real managerial stake behind the topic of resilience is its profound comprehension at all organizational levels, together with the need to build it in a proactive manner, so as to turn resilience into a competitive advantage, and not only to use it as a defensive response to extreme events [156]. "Resilience thinking" can no longer be associated exclusively with defensive and reactive measures, but it has to involve the everyday activities of the organization, changing its nature and becoming a best practice to avoid also minor (if compared to disasters) problems [170]. Therefore, the managerial challenge is transforming organizational resilience from a set of redundant preventive actions, involving resources management, into a proactive strategy funded on a set of practices capable of fostering daily effectiveness of operations and processes.

Since the publication of Holling's paper in 1973 [203], the topic of resilience has attracted the attention of management scholars.

Nevertheless, since the global financial crisis of 2008, the topic has aroused a higher level of interest, in particular concerning strategic and operational management of resilience [90] and supply chain resilience [161]. Organizational resilience and supply chain/network resilience have shown a rising trend in academic publications, which was not observed even after the events of September 11, 2001. Subsequent years register the birth of two new research topics: economic resilience [3] and financial resilience [7].

The aim of this article is to investigate the specific research domains of organizational resilience and its operational management to understand the current state of development and future research directions. A primary motivation for this study is the absence of a literature review in reference to this particular topic and the increasing interest of scholars, as demonstrated by the increasing number of papers on resilience in recent years.

As evidenced in the following sections, the time trend of publications that focus on this topic showed a significant increase, representing ever more interest in resilience and its effects on operational and strategic dimensions of business management. These considerations highlight the need for a well-conducted and systematic review of academic literature on the topic and its main fields to clearly understand the most interesting directions of future research.

Moreover, most recent literature reviews on resilience date back to 2013, with the work of Downes et al. [65] focusing only on empirical studies on the topic. In 2012, Ponis and Koronis [144] wrote another review that mainly focused on resilience in the supply chain context, investigating its concept and formative elements.

Following these considerations, we identified the need for a more general work on the topic together with the aim of implementing an innovative methodology for our research. We employed co-citation analysis, a well-established bibliometric method that can bring a level of objectivity to reduce the bias inherent in alternative approaches, such as traditional literature reviews. After clarifying the meaning of "organizational resilience", this paper explains the research methodology by beginning with a systematic literature search through the subsequent co-citation analysis based on factor analysis and multi-dimensional scaling methods. The results of the analysis are then shown. In the last section, we discuss the findings of our study and describe research implications, research limitations and future research directions.

2. What is organizational resilience?

The term resilience lends itself to a number of interpretations that have generated interest in a wide variety of research fields, ranging from ecology to metallurgy, individual and organizational psychology to safety engineering [17]. Nowadays the great majority of management scholars agree with the definition of resilience, even if they belong to different subfields, but its conceptualization and its operationalization within managerial research originated and developed across different research fields through last forty years. The definitions proposed below show the evolution of the concept of resilience through time, starting from Holling's definition [203] given in 1973 and spanning a variety of research fields: firstly in natural sciences, mainly ecology and environment, and applied sciences, principally engineering, and then in social sciences, specifically economics (mostly in the sub-field of economic geography), strategic management and operations management.

The concept of resilience was born in the physical sciences and it refers to the capacity of a system to recover its former shape

Download English Version:

<https://daneshyari.com/en/article/1032362>

Download Persian Version:

<https://daneshyari.com/article/1032362>

[Daneshyari.com](https://daneshyari.com)