

How to emerge stronger: Antecedents and consequences of organizational resilience

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How to emerge stronger: Antecedents and consequences of organizational resilience

For Review Only

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Abstract

Organizations have to strive in an uncertain and challenging environment. Hence, the role resilience has played at work has been of special interest in the last decade, although empirical research is still scant, especially regarding the antecedents and the consequences resilience has. In this study we analyze the role corporate social responsibility plays towards employees (CSRE) in the promotion of resilience at work, and how resilience results in organizational learning capability (OLC) and firm performance. Structural equation modeling was used to test our model with a sample of 296 companies from different sectors. Results show that CSRE had a positive influence on organizational resilience, which in turn affected firm performance via OLC. Therefore, we tested the antecedents and consequences resilience had empirically, whose practical implications in terms of further human resources management activities are also discussed.

Keywords: Organizational resilience, corporate social responsibility, organizational learning capability, firm performance.

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1. Introduction

Nowadays, in the wake of the recession in the past decade and the concurrence of continuous marketplace changes, organizations and employees have to strive in a challenging environment and in a workplace atmosphere of uncertainty. In this turbulent business context, building resilience within organizations seems to be of vital importance to understanding and responding to crisis situations (Kantur & İşeri-Say, 2012; Lengnick-Hall & Beck, 2005). The word 'Resilience' derives from the Latin word 'Resilire', meaning 'to spring back'. Thus, resilience is understood to be the capacity to rebound, 'to come back' from adversity, uncertainty, conflict, failure or even positive change (Luthans, 2002). Therefore, by definition, this capability enables companies to react to stressful events and emerge from challenging conditions and unexpected changes (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). In fact, organizational literature indicates that resilience is an essential organizational competence for modern organizations and is one of the most important characteristics inherent to their success in the world today (Näswall, Kuntz, Hodliffe, & Malinen, 2013; Britt, Shen, Sinclair, Grossman, & Klieger, 2016). Nonetheless, organizational resilience is still an under-explored variable in organizational literature. In fact, a recent systematic review on the organizational resilience term demonstrates that "the literature is still far from reaching consensus about organizational and operational implementation of static and dynamic resilience (How can an organization become resilient? How to design, create and maintain resilient processes? Which are dynamic capabilities for resilience?). This will probably be one of the main directions of research." (Annarelli, & Nonino, 2016, p. 10). For this reason, in the literature, there has been an urge to study and find out which Human Resources Management (HRM) systems or practices are necessary for organizations to respond to

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3 downturns, and are more resilient, as well as the outcomes of resilience (e.g., Lai,
4 Saridakis, Blackburn, & Johnstone, 2016).
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8 As some academics recently noted (e.g., King et al., 2015; Malik & Garg, 2017), to date,
9 little empirical research has examined the factors that foster organizational resilience. In
10 some of the literature it is suggested that HRM practices and policies build up
11 organizational resilience (Lengnick-Hall, et al. 2011). For example, specific
12 organizational practices such as promoting career development or a work-family balance
13 have proved to enhance employee resilience (Vera, Rodríguez-Sánchez, & Salanova,
14 2017). In this respect, it seems that the perception employees have that their employer
15 provides resources to them and gives them opportunities to develop, helps them build a
16 sense of resourcefulness and resilience (Rodríguez-Sánchez & Vera, 2015). Accordingly,
17 in this study our intention is to extend research in this field by proposing that a supportive
18 employee work environment, based on responsible, ethical and protective human resource
19 management practices -namely corporate social responsibility for employees- may
20 enhance organizational resilience. So, human resources corporate practices in terms of
21 providing support to employees in organizations (e.g., employee safety, job security,
22 profit-sharing, employee participation, treating employees fairly and equitably, etc.)
23 could be an effective way of increasing employee resources and capabilities, and thus
24 developing organizational resilience. In fact, this reasoning goes in line with previous
25 research that supports the idea that those organizations that collapse where trust, honesty,
26 and self-respect are developed are more prone to foster new options (e.g. mutual
27 adaptation, blind imitation of creative solutions) to emerge from chaos (Weick, 1993;
28 Taleb, 2012) and therefore to become more resilient.
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57 As we mentioned above, organizational resilience is an important characteristic that
58 positively influences the organization in the long run, since resilient ones are those that
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3 are able to survive and thrive in an increasingly volatile, complex and uncertain business
4 world (Näswall et al., 2013). This is true to the extent that, such capacity has been
5 suggested as being a core capability to explain why some firms outperform others (Kantur
6 & İşeri-Say, 2012). Surprisingly, despite how important this is in theory, there has been
7 little research into the link between organizational resilience and what impact this has had
8 on outcomes within organizations. Therefore, our aim is to make headway in this field by
9 also unveiling the influence workplace resilience has on other variables that are essentials
10 for organizational success and adaptation, such as organizational learning capability
11 (OLC) and firm performance. In this way, the proposal put forward in this study is that
12 organizational resilience may be linked to firm performance by means of OLC. Thus, in
13 this paper, OLC and hence firm performance are examined as being the results of
14 organizational resilience.

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In a nutshell, we aim to make a link between corporate social responsibility for employees (CSRE) and organizational resilience and in turn link this with OLC and firm performance. Therefore, the purpose of this paper is to contribute to recent debates on organizational resilience by revealing what antecedents and consequences this resilience has, and, in this way, shed some light on this under-explored and prominent phenomenon.

To do so, the article is organized in four sections. The first section offers a theoretical overview and the hypotheses of our proposed model. In the second section, we present the empirical research carried out and the methodology. The third section provides an overview of the main results, and the fourth section summarizes the conclusions, implications, and future lines of research stemming from this study.

1.1 Theoretical background: organizational resilience

Resilience has been defined as “the process by which an actor (i.e., individual, organization, or community) builds and uses its capability endowments to interact with

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3 the environment in a way that positively adjusts and maintains functioning prior to,
4 during, and following adversity” (Williams et al. 2017, p. 742). In other words, resilience
5 is not just an individual characteristic, but also a quality that can be studied from a
6 collective point of view (e.g., group, community, and organization) (Horne & Orr, 1997).
7 Hence, it is a term that has recently been applied to organizational and management
8 science. In fact, in these uncertain economic times the notion of “resilient organizations”
9 has gained in popularity as a concept that might help them survive and thrive in difficult
10 or volatile environments (Riulli & Savicki, 2003). Actually, organizational resilience is
11 required in our daily lives as well to shape and mitigate the consequences of adversity
12 when it strikes (Van Der Vegt, 2015).

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27 There are two different approaches to ‘operationalize’ organizational resilience. On the
28 one hand we can find literature that is focused mainly on resilience as an economic
29 outcome or financial performance (Pal, Torstenson, & Mattila, 2014). This view
30 conceptualizes organizational resilience as an organizational output measured with
31 economic indicators coming from the organization. And on the other hand, a more holistic
32 view, that considers an organization's capacity for resilience is embedded in a set of
33 individual level knowledge, skills, and abilities and organizational routines and processes
34 by which a firm conceptually orients itself, acts decisively to move forward, and
35 establishes a setting of diversity and adjustable integration that enables it to overcome the
36 potentially debilitating consequences of a disruptive shock (Lengnick-Hall & Beck,
37 2009). Therefore strategic human resource management systems are instrumental in
38 developing the requisite knowledge, skills, abilities and other attributes and in invoking
39 the appropriate collective routines and processes to generate resilience outcomes
40 (Lengnick-Hall, et al. 2011). We, take into account this second approach to conceptualize
41 and measure organizational resilience.

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3 In other words, the capacity for resilience is developed through strategically managing
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5 human resources to create competencies among core employees, that when aggregated at
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7 the organizational level, make it possible for organizations to achieve the ability to
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9 respond in a resilient manner when they experience severe shocks (Lengnick-Hall et al.,
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11 2011, p. 243). For instance, in Common Welfare HRM systems democracy, participation
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13 and unconditional trust are inherent parts of their culture (Chiva, 2014), and for
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15 developing resilience it is necessary to create a climate of open communication,
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17 collaboration, and to nurture a climate of reciprocal trust (Lengnick-Hall et al., 2011). In
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19 this sense, resilience can be enhanced through “the practice of caring relationships”
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22 (Wilson & Ferch, 2005, p. 45), that is, a way of interpersonal relating through which
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26 people empower and help each other to grow towards their potential.
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30 Organizational resilience has been defined as the capacity employees have (which is
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32 promoted and supported by the organization) to use resources to positively cope, adapt
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34 and thrive in response to changing work circumstances (Näswall et al., 2013). We can
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36 extract two main ideas from this definition. First, resilience is seen as a capacity
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38 employees that are part of the organization have. Therefore, the human factor is stressed
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40 as being the main actor in organizational resilience, as one that creates a climate of
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42 resilience that is enhanced by practices within the organization. This concept is based on
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44 the stream of literature related to psychological capital (e.g., Luthans et al. 2006) and the
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46 fact that resilience capability can be developed and is amenable to managerial
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48 intervention. In fact, Bardoel (2014) highlights the emerging challenge of human
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51 resources management (HRM) to enhance resilience, as HRM practices might positively
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54 contribute towards employees' attitudes and behaviors.
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58 The second concept taken from the definition of resilience is the fact that it is seen as a
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60 dynamic capacity that can be developed within the organization, rather than as a relatively

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3 static trait (Bonanno, 2004). In fact, most researchers agree that organizational resilience
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5 is dynamic in nature and thus, on the need to research which factors facilitate this and
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7 what the desirable consequences of organizational resilience are (Linnenluecke, 2017;
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9 Williams et al. 2017). In short, in our view, organizational resilience comes not just from
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11 the dynamic capacity employees have to absorb stress but also from their ability to learn
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13 and grow from adversity to emerge even stronger than before (Stephens et al., 2013).
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17 18 *1.2 Antecedents of resilience at work: Corporate social responsibility for employees*

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20 Existing empirical insights might not have yet revealed all the contributing factors to
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22 organizational resilience. However, in theory, it seems that specific organizational
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24 practices and a HR management system may be conducive to the development of
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26 organizational resilience (Lengnick-Hall et al., 2011; Vera et al., 2017). For instance, HR
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28 principles that reinforce organizational citizenship, personal accountability, and power
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30 based on expertise rather than hierarchical position would serve as a starting point for
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32 building organizational resilience (Lengnick-Hall et al., 2011). This concept is in keeping
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34 with the philosophy found in teal organizations, which are new structural models based
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36 on a higher consciousness level (Laloux, 2014). Teal organizations care about employee
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38 wellbeing, as well as stakeholders and the impact they have on the community. Moreover,
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40 in these organizations, relationships are based on trust (and not control), there are no
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42 hierarchies (i.e. they have a decentralized structure), and these organizations are actually
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44 innovative and perform much better.
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51 In this respect, due to business ethics debates, the concepts of corporate social
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53 responsibility and the ethical aspects of human resource management (HRM) have
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55 received increasing attention among scholars (Cooke & He, 2010; de Gama et al., 2012;
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57 Gond et al., 2011; Greenwood, 2013; Morgeson et al., 2013; Waldman & Siegel, 2008).
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3 Traditionally, CSR and HRM have been considered as independent fields. However, these
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5 two areas are connected due to the positive organizational outcomes for internal and
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7 external stakeholders. The study of HRM focuses primarily on internal aspects of the
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9 company and CSR has traditionally focused on external elements (the environment, the
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11 local community etc.). Nevertheless these two functions overlap, as Diaz-Carrion, Lopez-
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13 Fernandez and Romero-Fernandez (2018) recognize.
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18 Corporate social responsibility and ethical behaviour is associated with an ethical
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20 professional conduct towards employees and other stakeholders. It is becoming more and
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22 more important for companies to become socially responsible businesses and the effort
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24 they make is partly reflected in their sustainable outlook and corporate social
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26 responsibility reports. For some time now, we have recognized that employees are the
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28 most important resource at any company, yet they are often overlooked when
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30 sustainability is addressed. Thus, the social or human dimension has not been taken into
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32 account in sustainability, which includes a commitment to ethical human resource
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34 management. In this way, ethical business is encouraged and promoted as an internal
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36 system response (Moore & Wen, 2008).
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42 As organizational resilience has been defined as the capacity employees have, which is
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44 promoted and supported by the organization (Näswall et al., 2013), it is reasonable to
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46 think that corporate social responsibility activities can positively affect resilience, with a
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48 Social Identity Theory (SIT) approach (Turker, 2008). Employee-orientated corporate
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50 social responsibility (CSRE) includes a bundle of “good” HRM practices designed to
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52 demonstrate that the company recognizes the needs and concerns its employees have. In
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54 this line of research, Voegtlin and Greenwood (2016) conducted a meta-analysis on the
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56 link between CSR and human resource management (HRM) that reviewed 150 papers
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58 relating to both topics. Therefore, authors try to delimit the content of sustainable HRM
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3 systems in terms of CSR oriented practices they include (e.g. Barrena-Martínez,
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5 López-Fernández, & Romero-Fernández, 2017; Bučiūnienė & Kazlauskaitė, 2012;
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7 Celma, Garcia-Martínez, & Coenders, 2014; Diaz-Carrion, et al., 2018; Newman, Miao,
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9 Hofman, & Zhu, 2016). Therefore we can expect that CSRE as a form of *Perceived*
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11 *Organizational Support* (Eisenberger et al. 1986; Karavardar, 2014) has a positive impact
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13 on employee behaviour as a consequence of their perception about the extent to which
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15 the firm considers the contributions its employees have made and pays attention to issues
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17 related to their wellbeing. From a practical point of view, the most widespread worldwide
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19 standard, the Global Reporting Initiative (GRI), includes information related to HRM and
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21 CSR as, for example, firm commitments to labour practices, decent work and respect for
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23 human rights (Diaz-Carrion, et al., 2018).
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29 HRM practices included in CSRE may enhance the image, attitudes and intended
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31 behaviours of employees (Riordan et al., 1997). HRM practices included in CSRE such
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33 as flexible work arrangements, work teams or information-sharing mechanisms are
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35 supposed to increase intrinsic motivation in employees (Deci & Ryan, 1985). According
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37 to social exchange theory and the norm of reciprocity (Blau, 1964; Gouldner, 1960),
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39 employees who experience such investments as being beneficial may feel obliged to
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41 reciprocate and be more motivated, flexible or eager to make a comeback after adversity.
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43 In other words, such CSRE practices will have a positive impact on employee behaviour,
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45 as they may feel proud of belonging to a socially responsible company (Turker, 2009)
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47 and, at the same time, they are also conducive to a climate of resourcefulness in the
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49 organization (Rodríguez-Sánchez & Vera, 2015), which leads to increasing
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51 organizational resilience.
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57 Additionally, another characteristic of organizational resilience is linked to training
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59 mechanisms. Through CSRE practices, company employees may have incentives to share
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3 their knowledge and learn from others, thereby increasing the positive outcomes for the
4 organization (such as improved performance and innovation) and positive behaviour
5 (such as cooperation with the colleagues, increased resources for the team) is fostered in
6 the workplace. Since these opportunities are mechanisms that encourage employees to
7 take action and engage them in trouble-shooting or involvement mechanisms (Boxall &
8 Purcell, 2008; Bos-Nehles et al., 2013), this will help them anticipate future challenges
9 and thus will lead to increased organizational resilience.
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12 Therefore, with the arguments set out above, we expect that CSRE activities, which are
13 directly related to the physical and psychological working environment employees are in,
14 influence organizational resilience. The following hypothesis has been drawn up on this
15 basis:
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Hypothesis 1: Corporate social responsibility to employees has a positive relationship with organizational resilience.

1.3 Consequences of resilience at work: The mediating role of OLC between resilience and firm performance

Theoretically, organizational resilience is considered to have a number of positive outcomes in the workplace, such as on organizational commitment or job performance (Coutu, 2002; Lengnick-Hall et al., 2011; Worline et al., 2002). However, empirically some data has questioned the impact resilience has on work outcomes, especially on firm performance. For example, on an individual level, some studies show there to be a direct positive relationship between resilience and job performance or productivity (Luthans et al., 2005; Shatté et al., 2017), whereas others find null or weak relationships between both variables (Youssef & Luthans, 2007). Actually, recent research has shown that there is an indirect connection between resilience and performance via job satisfaction

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(Meneghel et al., 2016). Note, these studies have considered variables on an individual level. Therefore, it is plausible that the relationship between organizational resilience and firm performance may be influenced by other factors.

By definition, resilience capacity enables a company to take appropriate actions and undergo transformation in response to unanticipated events that potentially threaten its continued existence (Lengnick-Hall et al., 2011). Hence, organizational resilience enables a company to prosper in an ever-changing and threatening environment. Resilient organizations adopt effective strategic postures, diagnose their environmental conditions with greater accuracy, transform themselves in order to survive, develop new capabilities and create new opportunities to adapt to changes (Lengnick-Hall et al., 2011). Therefore, resilience helps companies become more flexible, adaptable and remain competitive, and learn from the past. In keeping with this point of view, it has been suggested in some literature that a resilient organization will maintain high performance levels even in complex and competitive environments (Boin & Van Eeten, 2013). Nevertheless, empirical evidence on the consequences organizational resilience has is actually scant, and the direct vs. indirect impact resilience has on organizational performance is still not clear.

Likewise, organizational resilience has been theoretically linked to learning processes (e.g., Lengnick-Hall et al., 2011; Rodríguez-Sánchez & Vera, 2015; Sutcliffe & Vogus, 2003) since the capacity to learn from past mistakes and emerge stronger is part of the essence of resilience (Boin & Van Eeten, 2013). In this respect, Salanova et al (2012) indicated that in critical and turbulent scenarios, resilient organizations develop a kind of strength that enables them to learn from adversity and emerge stronger. Thus, in the literature it is suggested that OLC may be enhanced by organizational resilience.

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3 OLC is defined as the organizational and managerial characteristics or factors that
4 promote the organizational learning process or enable an organization to learn (Chiva et
5 al., 2007). It is a multidimensional construct made up of five aspects. One of these is
6 experimentation which involves trying out new ideas, being curious at work, carrying out
7 changes in work processes or searching for innovative solutions (Chiva et al., 2007). In
8 turbulent and critical times, experimenting with new conditions is essential as is
9 innovation capability and adaptation in order to embrace complex risks and uncertainties
10 (Tschakert & Dietrich, 2010). Therefore, since organizational resilience is required to
11 survive unstable situations, this implies experimenting with new processes and
12 circumstances. In other words, as Mallak (1997) stated, 'practising bricolage' that is,
13 experimenting with the resources we have at hand.

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15 Another factor which promotes OLC, is risk taking for tolerating ambiguity, uncertainty
16 and errors (Chiva et al., 2007). In the literature the importance of designing environments
17 in which risks are taken and mistakes accepted has been stressed for a long time because
18 such environments encourage organizational learning (e.g., Hedberg, 1981; Sitkin, 1996).
19 Organizational resilience depends on an ability to provide novel and improvised solutions
20 (Amabile, 1988; Coutu, 2002) to exploit changes in challenging conditions. Developing
21 organizational resilience entails taking risks such as attempting to exploit new
22 opportunities and finding ways to face unexpected challenges (Lengnick-Hall et al.,
23 2011). Therefore, resilience in organizations may stimulate the concurrence of risk-taking
24 behaviours.

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26 The third factor that promotes OLC is interaction with the external environment, which
27 is the extent to which a company maintains relationships and is connected to its immediate
28 environment (Chiva et al., 2007). Being in harmony with its surroundings is very
29 important since the organization attempts to evolve at the same time as its changing
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3 environment (Hedberg, 1981). Organizational resilience entails continuous innovation
4 and adaptation to changing conditions and unexpected events in today's unpredictable
5 business environments. Hence, resilience within organizations implies they have a strong
6 capability to respond successfully to the continuous disturbances in these (Kantur & İşeri-
7 Say, 2012). Accordingly, resilient organizations should have constant interaction with the
8 world around them in order to respond rapidly and adapt to changes in the corporate
9 environment. Hence, resilience within an organization entails more frequent connections
10 and relations with its immediate surroundings.
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22 The fourth component that encourages organizational learning is dialogue (Chiva et al.,
23 2007). Dialogue is defined as a sustained collective inquiry into the processes,
24 assumptions, and certainties that everyday experience is made up of (Isaacs, 2000).
25 Authors, who have looked at the social perspective in particular (Brown & Duguid, 1991;
26 Weick & Westley, 1996), stress how important dialogue and communication are in
27 organizational learning. According to Lengnick-Hall et al. (2011, p. 250) organizational
28 resilience requires a climate of open communication in which "*employees feel confident*
29 *in their ability to explore new options while exploiting what they know, and to share*
30 *information and observations in ways that lead to quick and situation-specific responses*
31 *when novel conditions emerge*". Therefore, communication and dialogue among
32 employees proliferate as organizations become more resilient.
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48 The last dimension which favours OLC is participative decision-making which refers to
49 the level of influence that employees have in the decision-making process (Cotton et al.,
50 1988). In the literature, the importance of involving people in company decisions about
51 promoting organizational learning has been emphasized (Chiva et al., 2007; Scott-Ladd
52 & Chan, 2004). In the literature it is suggested that empowerment can be considered as
53 an outcome of resilience (e.g., Cakir & Yerin Guneri, 2011). The notion of empowerment
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3 implies giving power or delegating authority to someone (Burke, 1986). Hence,
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5 empowerment entails decentralizing decision-making and participative management
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7 techniques as a means to sharing power or delegating authority (Konger & Kanungo,
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9 1988). Accordingly, organizational resilience seems to lead to more power delegation and
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11 employee participation in decision-taking.
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16 In short, organizational resilience seems to promote each factor that makes up OLC:
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18 experimentation, risk-taking, interaction with the external environment, dialogue and
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20 participative decision-making. In turn, organizational learning and the factors that
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22 promote this have been shown to have various effects, including a beneficial one on firm
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24 performance (e.g., Camps & Luna-Arocas, 2012; Guinot, Chiva & Mallen, 2013; Tippins
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26 & Sohi, 2003). Jerez-Gómez et al. (2005) consider OLC to be a key element in improving
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28 efficiency and for organizational capacity to innovate and grow, while other authors state
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30 that organizational learning capability is one of the strategic means of achieving long-
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32 term organizational success (Liao & Wu, 2010).
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37 Organizations capable of learning from competitors and customers are better placed to
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39 identify and act upon market developments and trends (Camps & Luna-Arocas, 2012),
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41 thus these organizations are usually more flexible and respond faster to new challenges
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43 than their competitors (Jiménez-Jiménez & Sanz-Valle, 2011). Moreover, organizations
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45 which learn may provide more suitable and sharply targeted products, thereby increasing
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47 customer satisfaction and responding more successfully to changes in the environment by
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49 providing added-value (Camps & Luna-Arocas, 2012), and hence improving sales/profit
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51 margins (Slater & Narver, 1995; Tippins & Sohi, 2003). Thus, OLC is conducive to
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53 having a dynamic and proactive organizational vision, which generates unique and
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55 valuable resources and capacities in the firm, is hard to replace and difficult to imitate,
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57 and may lead to higher levels of firm performance (García-Morales et al., 2012). On the
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basis of the above arguments, organizational learning literature has usually established a positive direct association between OLC and several measures of firm performance –both objective and subjective- including financial and non-financial aspects (e.g., Akgün et al., 2014; Camps & Luna-Arocas, 2012; Guinot et al., 2013; Zhou, Hu & Shi, 2015).

In keeping with the reasons stated above, we propose that organizational resilience promotes OLC factors, which in turn enhances firm performance. Therefore, we have put forward the following hypothesis:

Hypothesis 2: The relationship between organizational resilience and firm performance will be mediated by OLC.

2. Method

2.1. Data Collection

The study focuses on a sample of 11594 Spanish firms, which was based on a list of companies provided by the Spanish Ministry of Economy and Competitiveness. This covers heterogeneous small-medium size companies that meet at least one of these requisites for innovation: 1) The organization has received public funding for R&D in the last three years; 2) The organization has demonstrated it is innovative by means of developing its own innovative products/services; 3) The organization has demonstrated its innovative capacity by any official certification recognized by the Ministry of Economy and Competitiveness. Therefore, these are not necessarily highly innovative organizations, but they are concerned about nurturing innovation and productivity within the company.

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3 In order to make our model robust and avoid common method variance, different
4 questions were addressed to different people in the same organization. In this respect,
5 while questions related to resilience and OLC targeted human resources managers
6 (because these questions concerned the perception of people and the atmosphere within
7 the organization); the general manager at the organization answered questions about
8 CSRE and firm performance, (because these questions were about company policy and
9 results on this matter). We believed that human resource managers as well as general
10 managers have gained an overall perspective and in-depth knowledge of their
11 organizations as a result of their position and their experience within it. By being in close
12 contact with different departments, they can provide an accurate picture of what happens
13 in their organizations, and are therefore a reliable source of information for evaluating
14 their companies as a whole. Moreover, to encourage participation, respondent anonymity
15 was guaranteed, which encouraged them to provide more honest answers, thereby
16 increasing the reliability of the results.

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36 The questionnaire addressed to human resource managers consisted of 19 items (5 related
37 to resilience at work and 14 to OLC), while the questionnaire for general managers had 9
38 (5 related to CSRE and 4 to firm performance). All items were measured on a seven-point
39 Likert scale. All Likert-scaled indicators were expressed positively and respondents had
40 to state whether they agreed or disagreed with each statement included on the
41 questionnaire. The survey was completed by means of telephone interviews since this
42 technique is useful when asking questions to different people in the same company or
43 when people are hard to reach, as was the case with the managers at major companies in
44 this study. Finally, a sample of 296 companies was obtained. The size of the companies
45 ranged from 10 to 260 employees with the mean value being 47 employees ($SD = 39,8$)
46 and a mean firm age of 26 years.

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2.2 Measures

We used scales that have been validated and which are well-known in the literature, the reliability information (Cronbach alpha's) for the scales is presented in the results section, table 2.

Corporate Social Responsibility to employees. We assessed 'corporate social responsibility to employees' with five items adopted from the Turker scale (2009) on corporate social responsibility. Turker measured four forms of CSRE on four scales: CSRE to social and non-social stakeholders; CSRE to employees; CSRE to customers; and CSRE to government. We used the scale for CSRE to employees and the questions were answered by the general manager of each organization, an example of which is: "Our company policies encourage employees to develop their skills and careers".

Organizational resilience. We assessed 'organizational resilience' with five items from the original Caza and colleagues scale (2010) adapted by Stephens and colleagues (2013). The scale questions were answered by the Human Resources manager at each organization, an example of which is: "Employees at this company bounce back when they confront setbacks at work".

Organizational learning capability. We assessed 'Organizational learning capability' with 14 items which comprised the five dimensions of the construct. These dimensions were: experimentation, risk-taking, interaction with the external environment, dialogue, and participation (Chiva & Alegre 2009). The Human Resources manager at each organization answered the questions on the scale, an example of which for each dimension was: "People here receive support and encouragement when presenting new ideas" (experimentation); "People are encouraged to take risks at this organization" (risk-taking); "There are systems and procedures for receiving, collating and sharing

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3 information from outside the company” (Interaction with the external environment);
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5 “There is free and open communication within my work group” (dialogue); “Managers at
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7 this organization frequently involve employees in important decisions” (Participative
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9 decision-making).
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13 *Firm performance.* We assessed firm performance by means of 4 items validated by
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15 Tippins and Sohi (2003). General managers were asked to report how well their company
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17 had performed during the previous 2 years. The items which made up this scale were (1)
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19 customer loyalty, (2) sales growth, (3) profitability and (4) return on investment. A 1- to
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21 7-point Likert scale was used; where a 1 gave the participating company the lowest score
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23 in relation to how well the company was performing and 7 the highest.
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28 *2.3 Control variables*

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30 Bearing in mind the external sources that can alter firm performance, we have included
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32 both company size and company age as control variables. Empirical studies examining
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34 company performance as a dependent variable have commonly used company size as a
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36 control variable (e.g., Chiva & Alegre, 2009; Guinot et al., 2013) since this has been
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38 shown to influence organizational performance (e.g., Tippins & Sohi, 2003). On the other
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40 hand, the experience and organizational competencies that comes with age helps
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42 companies become more efficient and, therefore, perform better than younger companies
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44 (Jiménez-Jiménez & Sanz-Valle, 2011). Accordingly, company age has also been
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46 included as a control variable of firm performance.
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52 *2.4 Reliability of the measurement scales and data analyses*

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54 First, we calculated descriptive analyses (i.e., means, standard deviations), inter-
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56 correlations and reliability analyses (Cronbach’s alpha) using SPSS.
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To check how reliable the scale was, as well as Cronbach's Alpha coefficient (Cronbach, 1951), we have used two indicators: composite reliability (Fornell & Larcker, 1981) and average variance extracted (Alegre & Chiva, 2008).

Given our use of subjective evaluation measures, we conducted Harman's single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff & Organ, 1986) to assess whether common method variance existed and to tackle potential social desirability bias in the responses. The results of the confirmatory factor analysis with the 22 indicators loading into a single factor ($\chi^2(230) = 4,547.249$; CFI = 0.000; RMSEA = 0.259; BBNFI = 0.000; $\chi^2/df = 19.77$) showed a poor fit, thereby indicating that the single factor does not account for all the variance in the data. Consequently, and in accordance with this procedure, we do not consider common method variance to be a problem in our research.

Secondly, we implemented Structural Equation Modeling (SEM) by AMOS to test the hypothesized model following the recommendations for mediating analyses for latent constructs and multiple mediators (Hombeck, 1997; James, Mulaik, & Brett, 2006). Three models were tested in order to verify the hypotheses: "M1.Proposed" which assumed that CSRE was positively related to resilience at work that in turn was linked to OLC that was conducive to firm performance (see Figure 1); "M2.Partially Mediated" in which there was a direct relationship between resilience and performance; and, as recommended by Kline (1998), we also tested an alternative model to show that the order of the mediating variables in our model was not arbitrary. Consequently, "M3.Alternative", in which resilience mediates the relationship between OLC and performance, was tested.

Please insert figure 1 here approximately

For the SEM analyses, methods of maximum likelihood were used by testing absolute and relative indices for goodness of fit (Marsh, Balla, & Hau, 1996): the χ^2 index,

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Goodness of Fit Index (GFI), the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), and the Tucker-Lewis Index (TLI). Values smaller than .08 for RMSEA (Browne & Cudeck, 1993) and SRMR (Hu & Bentler, 1998) and greater than .90 for the remaining indices (Hoyle, 1995) indicated an acceptable fit. Finally, the Akaike Information Criterion (AIC; Akaike, 1987) was computed to compare competing non-nested models; the lower the AIC index, the better the fit was.

Moreover, we also performed the bootstrapping method by AMOS (MacKinnon et al., 2002; Preacher & Hayes, 2004) using Monte Carlo estimation method. This method enabled us to determine more accurately what the direct and indirect effect of a variable was when the samples were not big, as well as the confidence intervals of the indirect effects (Efron & Tibshirani, 1993; Shrout & Bolger, 2002). The null hypothesis, which proposed that x had no indirect effect on y via m , was ruled out when the confidence interval was above or below zero.

3. Results

First, results (see table 1 and 2) show that all Cronbach's Alpha coefficient values, as well as those for composite reliability, were above the minimum acceptable value of 0.7 (Nunnally, 1978). Meanwhile, in all situations, the average variance extracted showed values greater than the recommended minimum of 0.5 (Nunnally, 1978; Hair, Anderson, Tatham, & Black, 1998). Furthermore, the pattern of correlations indicated that, as expected, there was a positive and significant interrelationship between CSRE, resilience and OLC. Note the correlation between resilience and performance was not significant.

Please insert tables 1 and 2 approximately here

3.1 Model Fit: Structural Equation Modeling

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Table 3 displays the results of the structural equation analyses. We fit our proposed model (M1) to the data. CSRE and resilience were made up of five indicators each one (items). OLC was made up of three indicators related to the subscales (experimentation, risk-taking, interaction with the external environment, dialogue, and participation). Finally, firm performance was composed of four indicators.

Please insert table 3 approximately here

Results indicated that M1_{Proposed} (in which CSRE had a positive relationship with resilience which was in turn related to OLC and firm performance) fit the data well. The partial mediation model, M2_{Partially mediated} (in which we also directly related of resilience to performance), also showed good fit indexes although the AIC was higher in this second model (M2 AIC=719.55) than that in M1 which implies there is a better fit for M1 according to Akaike (1987). Moreover, in M2, the direct relationship between resilience and performance was not significant ($\beta=-.01, n.s$). Finally, we tested an alternative model as proposed by Kline (1998), in order to prove that the order of the mediating variables in the model was in a theoretical and not arbitrary sense. As a consequence, M3_{alternative}, in which resilience mediates the relationship between OLC and performance, was tested. As expected, again the results yielded were favourable to M1, since M3 showed a higher chi-square value, and worse AIC when compared to M1. Hence, the results displayed in figure 2 provide evidence favourable to M1: (1) there is a positive and significant relationship between CSRE and resilience; (2) there is a direct significant relationship between resilience and OLC, $\beta=.77, p<.001$; and (3) there is a direct significant relationship between OLC and performance, $\beta=.15, p<.01$. These findings also demonstrated that resilience and performance were fully mediated by OLC.

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Moreover, the results from bootstrapping analyses showed that OLC fully mediated the relationship between resilience and firm performance, since the direct relationship between resilience and firm performance was non-significant ($\beta = -.01$, n.s). The estimated indirect effect resilience had on firm performance was 0.066. The 95 percent bias corrected confidence intervals for the indirect effect were between 0.011 and 0.145, and there was a p-value of 0.001 for the two-tailed significance test. Hence, the standardized indirect effect resilience had on firm performance was significantly different to zero at a level of 0.001 and we can discard the null hypothesis of no mediation effect. Consequently, we may conclude that, as expected, OLC mediates the relationship between resilience and firm performance.

Please insert figure 2 approximately here

4. Discussion

Results from structural equation modeling analyses showed how corporate social responsibility (CSRE) for employees had a positive impact on organizational resilience. In other words, corporate social responsibility acted as a key antecedent that enabled employees to feel more resourceful and capable of recovering from any disturbance. At the same time, organizational resilience, through organizational learning capability, had a positive relationship on firm performance. Therefore, the results confirmed our hypotheses regarding the role CSRE played as a promoter of organizational resilience (Hypothesis 1), and also concerning the impact organizational resilience had on firm performance through OLC (Hypothesis 2). Hence, our study has made headway as regards testing antecedents and the consequences organizational resilience has. Moreover, this model has been tested with two key sources of information (CEOs and HR managers) and for this reason our results have been supported and are robust.

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4.1 Theoretical and practical implications

This study has shed light on the antecedents and consequences of organizational resilience, and has thus, responded to calls to research this topic (Linnenluecke, 2017; Williams et al. 2017). On one hand it has contributed, both in theory and in practice to prominent and innovative research on workplace resilience. The specific link between CSRE and employees with organizational resilience is an important and innovative finding in terms of practices that can be implemented at the workplace. In fact, theoretically, CSRE for employees encourages sharing knowledge, problem solving, and social support, among other behaviours, that are necessary for building resilience (Boxall & Purcell, 2008; Mallak, 1997). Therefore, in our study, we empirically showed how important the activities aimed at taking care of employees are, and how CSRE for employees, helps build stronger organizations.

On the other hand, our study has extended empirical clarification concerning the underexplored relationship between resilience and the outcomes of organizational performance (Shatté et al., 2017; Youssef & Luthans, 2007) by unveiling the mediating role OLC has in this relationship. Our results support the logical premise that resilience enhances capability to learn by promoting experimentation, risk-taking, interaction with the environment, dialogue and open communication, as well as participative decision-making, thereby enhancing firm performance. This pattern of results provides empirical evidence on how organizational resilience may benefit organizations by boosting some organizational processes which are essential today, such as learning capability.

Moreover, in the literature there has clearly been a request to provide empirical evidence of the mediating role OLC has on performance (García-Morales et al., 2012). So, our study has bridged this gap in the literature. In this paper, the positive influence OLC has

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3 on perceived business performance has been confirmed, thus reinforcing the general
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5 consensus there is about this relationship. These findings have contributed to the growing
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7 body of literature on organizational learning by providing further empirical support on its
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9 positive relationship with OLC and firm performance on the basis of a large sample of
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11 Spanish firms of different sizes and from various industries.
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15 Since resilience can be enhanced (Legnick-Hall et al., 2011), our study has also provided
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17 powerful insights for managers and practitioners. First, managers should clearly
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19 implement policies and practices for boosting CRS for employees. For instance, by
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21 supporting those employees that want to have additional training or go on courses.
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23 Additionally, they could give support to those that want to keep on developing their
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25 careers, or, for instance, promote a work-life balance. For example, they could provide
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27 opportunities for telework or introduce more flexible schedules. In reality, career
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29 development and work-life balance policies have been linked to resilience (Vera et al.,
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31 2017). However, not only is support needed, but also an atmosphere of open
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33 communication must be created in which the wishes and expectations of employees are
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35 taken into account. These findings could help organizations develop policies and practices
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37 that are not only fair and helpful to their employees but also have organizational benefits.
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43 *4.2 Limitations and future research*

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46 This research is not without limitations. Firstly, it is cross-sectional. In future, it would
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48 be interesting to carry out longitudinal studies by collecting two or three measurements
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50 over time to establish cause-and-effect relationships. It would be of interest to analyze
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52 how increasing CSRE would lead to higher levels of organizational resilience and OLC
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54 that would give rise to enhanced firm performance in the future. The second limitation
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56 refers to the fact that data were collected through self-report questionnaires, which could
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3 generate common variance bias. However, the Harman's test revealed there to be no
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5 common method bias variance in the database. Furthermore, we also attempted to prevent
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7 this by having two key informants (the CEO and the HR manager at the organization) for
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9 the study variables. One related suggestion for future research might be to also include
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11 the point of view of the employees and to measure the level of resilience they have, since
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13 our study has only considered this on an organizational level. On the other hand, we only
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15 analyzed one type of antecedent (CSRE), thus, taking into account our ethical approach
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17 to the study of resilience, it would be convenient in future research to consider the role of
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19 ethical leadership style (such as servant or compassionate leadership). Besides it would
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21 be of interest to include as an outcome measure from resilience the role of wellbeing of
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23 employees, maybe considering happiness. Nowadays, short measures that measure
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25 happiness at work (i.e. Salas-Vallina & Alegre, 2018) may be feasible to apply in order
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27 to gather information about the link between resilience and happiness.
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33 4.3 Final note

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36 Although there is still much research to be done on the antecedents of organizational
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38 resilience and its consequences, our study marks a step forward in showing the human-
39
40 side of building organizational resilience, beyond financial and technologic resources.
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42 We really believe that practices linked to employee welfare make a difference in building
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44 a resilient atmosphere in the organization that in turn may lead to better firm performance
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46 by means of improving OLC.
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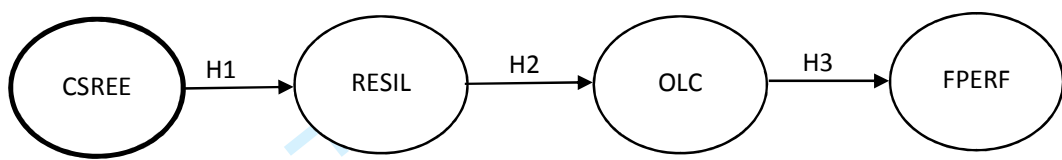
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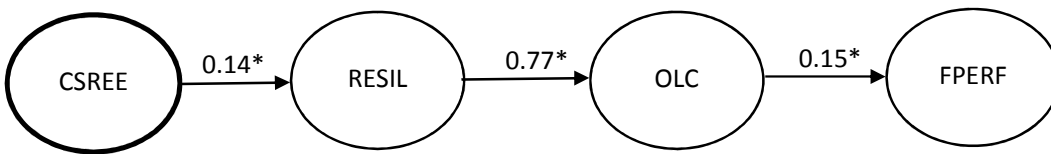
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Figure 1. Hypothetical research model



Note: CSREE = Corporate Social Responsibility for employees; RESIL = Resilience at work; OLC = Organizational learning capability; FPERF = Firm performance

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3 **Figure 2. Empirical results of the research model**
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16 *Significant correlation ($p < 0.05$).
17

18 Note: CSREE = Corporate Social Responsibility for employees; RESIL = Resilience at work; OLC = Organizational learning
19 capability; FPERF = Firm performance
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Table 1. Correlation factors, means and standard deviation (N=296) ⁽¹⁾

	Mean	S.D.	CSRE	RESIL	FPERF	EXP	RISK	INT	DIA	TDEC
CSRE	5.545	1.063	-							
Resilience	5.315	0.948	0.127*	-						
Firm performance (FPERF)	5.159	1.120	0.343**	0.094	-					
Experimentation (EXP)	5.380	1.214	0.084	0.537**	0,105	-				
Acceptance of risk (RISK)	4.610	1.521	0.015	0.407*	-0.007	0.380**	-			
Interaction with environment (INT)	4.749	1.418	0.119*	0.439**	0.069	0.355**	0.337**	-		
Dialogue (DIA)	5.605	1.175	0.073	0.613**	0.153**	0.616**	0.321**	0.474**	-	
Taking decisions (TDEC)	4.732	1.360	0.064	0.512**	0.109	0.534**	0.334**	0.440**	0.636**	-

** Significant correlation (p < 0.05)

** Significant correlation (p < 0.01)

(1) For the standard deviations and correlations between factors, we have worked with the mean for the items which up each dimension is made up of.

Table 2. Reliability of the measurement scales.

Construct	Cronbach's α	Composite reliability	Extracted mean variance
CSREE	0.91	0.905	0.656
Resilience	0.91	0.968	0.684
Firm performance	0.85	0.860	0.618
Experimentation	.93	0.927	0.865
Acceptance of risk	.82	0.833	0.718
Interaction with the environment	.86	0.859	0.670
Dialogue	.93	0.925	0.755
Participative decision-making	.95	0.953	0.872

Table 3. Fit indices of the Structural Equation Models (n=296)

Model	χ^2	df	GFI	RMSEA A	CF I	TL I	IFI	AIC
Model 1 (M1)	640.23	39 7	.87	.05	.96	.96	.96	776.23
Model 2 (M2)	640.23	39 6	.87	.05	.96	.96	.96	778.21
Model 3 (M3)	644.3	39 7	.87	.05	.96	.96	.96	779.78

Notas. χ^2 = Chi-square; df = degrees of freedom; GFI = Goodness of Fit Index; RMSEA = Root Mean Square Error Approximation; SRMR = Standardized Root Mean Square Residual; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; IFI=Incremental Fit Index; AIC = Akaike Information Criterion; χ^2 dif. = difference of Chi-square; *** $p < .001$, * $p < .05$.