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A Model of Knowledge-sharing for the 21st Century Organizations

Sabino Ayestarán[a], Daniel Gómez[a], Edurne Martínez-Moreno[a], Eva Mª Lira[b], and Silvia Da Costa[b]

[a]*Universidad del País Vasco/Euskal Herriko Unibertsitatea, Spain;* [b]*Universidad de Zaragoza, Spain*

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A B S T R A C T

Organizations' survival ability is increasingly constrained by their innovation possibilities, that is, by their capacity to create and share knowledge in order to cope with new and more complex challenges. Aiming for the three axes on which new organizational models must be based (economic, technological, and social innovation), this article carries out a systematic review among five databases on the variables related to innovation in organizations. After applying exclusion criteria, 132 papers out of the 1,215 originally found were analyzed. As a result, an integrating theoretical model was proposed from the organizational psychology perspective: the model of knowledge-sharing organizations. The model allows for cultural, psychosocial, and technological aspects and proposes three levels of analysis: 1) innovative culture and governance (that groups together the characteristics of a culture oriented towards innovation, and the organizational policies into which it is translated); 2) leadership, teams, and people (that includes variables that impact people's innovative capacity, leadership styles, and forms of teamwork); and 3) technological tools for innovation (that focus on how technology can be used, specifically ICT, to enhance the organization's innovative capacity). Future directions as well as limitations are addressed at the end of the article.

Un modelo de conocimiento compartido para las organizaciones del siglo XXI

Palabras clave:
Psicología de las organizaciones
Innovación organizacional
Innovación social
Intercambio de conocimientos
Gestión de la innovación
Revisión sistemática

R E S U M E N

La capacidad de supervivencia de las organizaciones está cada vez más condicionada por sus posibilidades de innovación, es decir, por su capacidad de crear y compartir conocimiento para hacer frente a nuevos y más complejos retos. Atendiendo a los tres ejes en los que deben basarse los nuevos modelos organizativos (innovación económica, tecnológica y social), el artículo realiza una revisión sistemática en cinco bases de datos sobre las variables relacionadas con la innovación en las organizaciones. Tras aplicar criterios de exclusión, se analizaron 132 trabajos de los 1,215 encontrados inicialmente. Como resultado, se propuso un modelo teórico integrador desde la perspectiva de la psicología organizacional: el modelo de organizaciones creadoras de conocimiento compartido. El modelo contempla aspectos culturales, psicosociales y tecnológicos, y propone tres niveles de análisis: 1) cultura innovadora y gobernanza (que agrupa las características de una cultura orientada a la innovación y las políticas organizativas en las que se traduce); 2) liderazgo, equipos y personas (que incluye las variables que inciden en la capacidad innovadora de las personas, los estilos de liderazgo y las formas de trabajo en equipo); 3) herramientas tecnológicas para la innovación (que se centra en cómo se puede utilizar la tecnología, concretamente las TIC, para potenciar la capacidad innovadora de la organización). Finalmente, se abordan las limitaciones del estudio y se proponen futuras líneas de investigación.

The serious situation that results from COVID-19 in today's society has led to information society 4.0., where we find ourselves stepping on the accelerator towards a 5.0 society in which the person lies at the centre of the technological transformations that must be implemented. In 2015 the Japanese government proposed society 5.0., characterized by being a super-intelligent society in which needs are clearly differentiated and satisfied, and in such a way that required products and services are supplied in the necessary quantities to the people who demand them when and as they need them (Harayama, 2017). Regardless of their age, sex, region or language, all this allows people making up this society to receive high quality services that derive from combining different systems (e.g. energy, transport), which are supported by advanced organizational management systems. This means that three types of changes must be managed: economic and geopolitical change; technological change; and a change in people's mentality. Therefore, the organizations making up this type of society must prepare to manage these changes by assuming new organizational

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Correspondence: Edurne.martinez@ehu.eus (E. Martínez).

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models that allow their innovation and the development of these super-intelligent societies.

The OECD's Oslo Manual (OECD/Eurostat, 2018) groups all innovation types into two categories: product (substantial improvements in goods or services) and business (improvements in business processes for different functions, including business innovations). This way of understanding innovation, which is closely linked with organizations' technological and economic performance, contrasts with its eminently social nature because it is a phenomenon that always results from interactions between people (European Commission, 1995; Pol & Ville, 2009).

Pot and Vaas (2008) distinguished among technological, economic, and social innovation in organizations. Several research works have highlighted the enormous potential of taking into account the social side of innovation (both its means and ends) to complement its technological side and to, thus, respond in parallel to social challenges and needs (Pot, 2011; Pot et al., 2012; Pot & Vaas 2008). Social innovation has been defined as "the introduction and implementation of new ideas, activities, services, and processes in order to satisfy social needs of individuals, groups, and organizations within society, and to advance in social relations and social organization" (Looise, 1996 in Bondarouk & Olivas-Luján, 2014, p.11).

Scientific literature has investigated, from a variety of disciplines, the processes that lead organisations to generate greater innovation, with knowledge management (KM) being one of the most widely studied and cited as a sustaining pillar for organisations, especially in knowledge-intensive organisations (Widén-Wulff & Suomi, 2003). Within KM, knowledge sharing (KS), the ability to share knowledge within the organisation, has emerged as a core aspect (Hislop, 2013; Widén-Wulff & Suomi, 2003).

In general, KS is understood as a form of behaviour or process that occurs at the individual level, although it may be conditioned by individual, group, or contextual/organisational variables (Ahmad, 2018; Hussein et al., 2016; Razak et al., 2016; Zheng, 2017). Some of the commonly recognised factors that can influence KS are individual traits, such as experience, beliefs, or values (Wasko & Faraj, 2005), organisational or environmental traits, such as the organisational climate (Saleh & Wang, 1993) or a reward system (Farooq, 2018), and the technologies made available to the process together with the use that is made of them (Hall-Andersen & Broberg, 2014; Lin, 2007).

However, Widén-Wulff and Suomi (2003) shifted the focus from an individual to a systemic understanding of KS by proposing a knowledge-sharing organisation (KSO) model. Farooq (2018) follows in the same line by considering KS as a process that takes place between organisational units rather than in terms of individual behaviours.

Ayestarán (2017) integrated several research findings (Ilgen et al., 2005; Pot & Vas, 2008; Witherspoon et al., 2013) into a knowledge-sharing organization model, grounded in the a number of assumptions. First, a culture based on transparency and trust will lead to the practice of knowledge sharing and, hence, to a better innovation performance. Second, teams and organizations are required to develop shared mental models and transactive memory systems among their members. Third, creativity and cooperation are the key competencies for knowledge sharing and innovation in teams. Fourth, shared digital platforms for information and knowledge sharing will leverage innovation capabilities.

This paper aims to follow the path initiated by these authors (Ayestarán, 2017; Widén-Wulff & Suomi, 2003) by proposing an organisational model for managing KS based on the model proposed by Ayestarán (2017).

This article focuses on carrying out a systematic review on the three axes on which new organizational models must be based: economic innovation, technological innovation, and social innovation. For this purpose, a thorough examination of existing scientific evidence on the variables related to innovation in organizations was carried out. Later an alternative and integrating theoretical model was proposed, a new model for the 21st century that takes cultural, psychosocial, and technological aspects as its central elements: the model of Knowledge-Sharing Organizations.

Method

The methodology herein employed to review the scientific literature is the narrative review, which enables studies from different methodologies and theoretical perspectives to be related (Siddaway et al., 2019).

To perform this analysis, articles published from 2015 to 2020 in ABI-INFORM, JSTOR, Dialnet, ProQuest, and Scopus were considered. The selected keywords to search were based on innovation types: technological innovation, technical innovation, social innovation, work innovation, organizational innovation, and economical innovation. These keywords appeared in keywords and abstract fields. In the searches for the terms technical innovation and technological innovation, the term organizati* was added as a filter to any part of the text so that only the articles that at some point refer to some organizational element would emerge.

Inclusion and Exclusion Criteria

Having performed the search for all the previous terms in the selected journals, only the articles that met the following criteria were incorporated in the analysis: articles written in English and/or Spanish whose central theme was innovation in organizational contexts, and which examined the variables that intervened in the innovation process. Quantitative and mixed studies were accepted, as were both empirical and quantitative meta-analyses. However, studies that were exclusively qualitative, case studies, and narrative reviews that did not include statistical analyses were excluded.

Some studies were eliminated from the analyses because, despite meeting the above criteria, they presented serious problems in generalizing their results to innovation types other than that studied by taking a perspective that was limited to a certain activity sector.

Articles Included

Searches yielded 1,215 articles, which were analyzed from the five aforementioned databases. During the analyses, 1,083 articles were excluded because they neither met the inclusion criteria nor appeared in more than one search. This left 132 papers that met the inclusion criteria. Table 1 shows the number of articles analyzed per database. Table 2 includes the source, study and method type, as well as investigated innovation type indicated in the analysed articles.

Results

The results of the narrative analysis have been organised taking into account the levels of analysis proposed by the scientific literature on KM and KS. Many authors organise the variables surrounding KS into three levels (organisation, team or group, and individual; Ahmad & Karim, 2019; Zheng, 2017). Hussein et al. (2016) differ by identifying technological applications, in addition to employee motivation (individual level), and the organisational context (organisational level), as key to KS. However, the perspectives that view KS as an organisational process rather than as individual behaviour speak of dimensions or elements without organising them into levels. For example, Widén-Wulff and Suomi (2003) cite intellectual capital, building shared knowledge in business processes, communication as a key individual skill, a good ICT infrastructure and sufficient financial

Table 1. Number of Articles Analyzed per Database

Database	Keywords	Field	Original articles number	Final articles number
ProQuest	Technological Innovation	keywords	203	23
	Technical Innovation	keywords	10	0
	Social Innovation	keywords	204	12
	Organizational Innovation	keywords	89	30
	Economic Innovation	keywords	0	0
Dialnet	Technological Innovation	descriptors	106	4
	Technical Innovation	descriptors	5	0
	Social Innovation	descriptors	56	2
	Organizational Innovation	descriptors	74	9
	Economic Innovation	descriptors	1	0
Scopus	Technological Innovation	keywords, abstract, title	214	42
	Technical Innovation	keywords, abstract, title	5	0
	Social Innovation	keywords, abstract, title	4	0
	Organizational Innovation	keywords, abstract, title	28	15
	Economic Innovation	keywords, abstract, title	0	0
JSTOR	Technological Innovation	abstract	7	1
	Technical Innovation	abstract	0	0
	Social Innovation	abstract	7	1
	Organizational Innovation	abstract	1	0
	Economic Innovation	abstract	0	0
ABI/INFORM	Technological Innovation	abstract	79	13
	Technical Innovation	abstract	8	0
	Social Innovation	abstract	82	0
	Organizational Innovation	abstract	90	0
	Economic Innovation	abstract	2	0
Total			1,275	132[1]

Note. [1]Duplicate items removed.

headroom as the main elements. Meanwhile, Farooq (2018) posited KS as a multidimensional construct consisting of organisational culture, organisational structure, reward systems, motivation, interpersonal trust, management support, and ICTs.

Taking the latter perspective as a starting point, we have set out the results of the analysis below, organised into key dimensions for innovation management and KS in organisations. Subsequently, in the conclusions we shall group the identified dimensions into three levels for an integrating understanding of KS management.

Organizational Culture and Innovation

From a cultural perspective, an entrepreneurship culture and oriented in the long term is considered beneficial for innovative performance compared to an organization's paternalistic and internal-oriented cultures (Laforet, 2016). Shahzad et al. (2017) found that an organization's innovative performance is supported by a culture and climates that are characterized by flexibility and support for change. It has also been established that workers' resistance to change and control and perception of risks negatively impact attitudes to adopt new technologies and work processes (Escobar-Rodríguez & Bartual-Sopena, 2015). García-Sánchez et al. (2018) also found that an organization's internal flexibility benefits its performance through more innovation.

Based on the Competing Values Framework (CVF) by Cameron and Quinn (1999), Rezaei et al. (2018) found that adhocratic and clan cultures had a positive effect on both organizational learning and technological and administrative innovation. Conversely, hierarchical or market cultures act as barriers for innovation in organizations. However, Makvandi and Nejad (2018) reported that market orientation benefits an organization's innovative capacity and performance. Finally, the existence of a culture oriented towards learning and knowledge management has been related to greater innovative capacity (Abdi et al., 2018).

Other authors have focused on investigating which capabilities of organizations can contribute to their innovative performance. They found that an organization's learning capacity and creativity (Sutanto, 2017), learning oriented towards exploration and exploitation (D. Wang & Lam, 2019), organizational agility (Vaculik et al., 2019), business intelligence, and the ability to share knowledge (Eidizadeh et al., 2017) are all organizational capabilities or qualities that facilitate or benefit innovation.

Intellectual capital stands out as one of these organizational attributes for allowing innovation to improve. J. Li and Yu (2018) found that intellectual capital has a direct positive effect on technological innovation and an indirect effect on business model innovation through certain organizational characteristics. Y. Wang et al. (2019) observed how the efficiency of intellectual capital positively impacts an organization's technological capacity. However, Xu et al. (2019) stated that intellectual capital (human, structural, relational) subdimensions have different effects on an organization's performance and its technological innovation capacity, while the human capital and structural subdimensions positively impact organizational performance, but relational capital has a negative impact. Relational capital positively influences technological innovation, while human capital has a negative impact. In more generic terms, Manzaneque et al. (2017) confirmed that human, and structural and relational capitals are capable of improving a company's performance in technological innovation. Jiang et al. (2019) demonstrated the positive impact of human capital on organizational innovation.

Finally, much effort has been made to investigate the benefits of absorptive capacity for organizations. This concept was first proposed by Cohen and Levinthal (1990) as an organization's ability to recognize the value of new and external information, assimilate it and apply it for commercial purposes. Since then, many researchers have related this ability to innovative performance in both the technological and organizational fields (Del Carpio Gallegos &

Table 2. Findings from the Reviewed Sources

Reference	Source	Investigated innovation type	Study type	Method
(Abdi et al., 2018)	Asia	Business	Empirical	Quantitative
(Al-Busaidi and Olfman, 2017)	International	Business	Empirical	Quantitative
(Antonioli and Della Torre, 2016)	Europe	Business and product	Empirical	Quantitative
(Anzola-Román et al., 2018)	Europe	Business and product	Empirical	Quantitative
(Azar and Ciabuschi, 2017)	Europe	Business and product	Empirical	Quantitative
(Bandera and Thomas, 2019)	North America	Business and product	Empirical	Quantitative
(Bartoloni and Baussola, 2016)	Europe	Business and product	Empirical	Quantitative
(Baussola and Bartoloni, 2016)	Europe	Business and product	Empirical	Quantitative
(Begonja et al., 2016)	Europe	Business	Empirical	Quantitative
(Beuren et al., 2019)	South America	Business	Empirical	Quantitative
(Blank and Naveh, 2019)	Asia	Business	Empirical	Quantitative
(Bocquet et al., 2019)	Europe	Business	Empirical	Quantitative
(Calisir et al., 2016)	Europe	Business	Empirical	Quantitative
(Calza et al., 2019)	Asia	Business and product	Empirical	Quantitative
(Campanella et al., 2017)	International	Business and product	Empirical	Mixed
(Casini et al., 2018)	Europe	Business	Empirical	Quantitative
(Černe et al., 2015)	International	Business and product	Empirical	Quantitative
(Chaubey and Sahoo, 2019a)	Asia	Business	Empirical	Quantitative
(Chaubey and Sahoo, 2019b)	Asia	Business	Empirical	Quantitative
(Chaubey et al., 2019)	Asia	Business	Empirical	Quantitative
(Qian Chen and Liu, 2019)	Asia	Business and product	Empirical	Quantitative
(Quan Chen et al., 2020)	Asia	Business and product	Empirical	Quantitative
(Choi et al., 2019)	North America	Business	Empirical	Quantitative
(Cleven et al., 2016)	Europe	Business	Empirical	Quantitative
(Corsi et al., 2019)	Europe	Business	Empirical	Quantitative
(Cozzarin, 2017)	North America	Business and product	Empirical	Quantitative
(Cui et al., 2016)	International	Business and product	Empirical	Quantitative
(Damanpour et al., 2018)	North America	Business	Empirical	Quantitative
(Dan et al., 2018)	North America	Product	Empirical	Quantitative
(Del Carpio Gallegos and Torner, 2018)	South America	Business and product	Empirical	Quantitative
(Delgado and Martín, 2006)	Europe	Business and product	Empirical	Quantitative
(Dietrich et al., 2016)	Europe	Business	Empirical	Quantitative
(Divisekera and Nguyen, 2018)	Oceania	Business and product	Empirical	Quantitative
(Eidizadeh et al., 2017)	Asia	Business	Empirical	Quantitative
(Escobar-Rodríguez and Bartual-Sopena, 2015)	Europe	Business	Empirical	Quantitative
(Fernández Perea, 2019)	Europe	Business	Empirical	Quantitative
(Fierro Moreno and Martínez, 2015)	North America	Business	Empirical	Quantitative
(Fu et al., 2015)	Europe	Business	Empirical	Quantitative
(Fuentes and Soto, 2015)	South America	Business	Empirical	Quantitative
(García Álvarez-Coque et al., 2017)	Europe	Business and product	Empirical	Quantitative
(García-Pozo et al., 2018)	Europe	Business and product	Empirical	Quantitative
(García-Sánchez et al., 2018)	Europe	Business	Empirical	Quantitative
(Geldes, Felzensztein, et al., 2017)	South America	Business and product	Empirical	Quantitative
(Geldes, Heredia, et al., 2017)	South America	Business and product	Empirical	Quantitative
(González-Blanco et al., 2019)	Europe	Business and product	Empirical	Quantitative
(Griffith et al., 2017)	North America	Business	Empirical	Quantitative
(Guisado-González et al., 2017)	Europe	Business	Empirical	Quantitative
(Guo et al., 2019)	Asia	Product	Empirical	Quantitative
(Hartono and Kusumawardhani, 2018)	Asia	Business and product	Empirical	Quantitative
(He et al., 2019)	Asia	Business	Empirical	Quantitative
(Heinze and Heinze, 2018)	North America	Business	Empirical	Mixed
(Heredia Perez et al., 2019)	South America	Business and product	Empirical	Quantitative
(Hervas-Oliver and Sempere-Ripoll, 2015)	Europe	Business and product	Empirical	Quantitative
(Hervas-Oliver et al., 2016)	Europe	Business	Empirical	Quantitative
(Hervas-Oliver et al., 2018)	Europe	Business and product	Empirical	Quantitative
(Ho and Fu, 2018)	Asia	Business	Empirical	Quantitative
(Hsu et al., 2019)	Asia	Business	Empirical	Quantitative
(Huang et al., 2019)	Asia	Product	Empirical	Quantitative
(Jiang et al., 2019)	Asia	Business and product	Empirical	Quantitative
(Juneja and Amar, 2018)	International	Business and product	Empirical	Quantitative
(Kauffmann and Carmi, 2019)	International	Business	Empirical	Quantitative
(Kharuddin et al., 2015)	Asia	Business	Empirical	Quantitative

Table 2. Findings from the Reviewed Sources (continued)

Reference	Source	Investigated innovation type	Study type	Method
(Kim and Shim, 2016)	Asia	Business and product	Empirical	Quantitative
(Kittikunchotiwut, 2015)	Asia	Business	Empirical	Quantitative
(Kwon and Cho, 2016)	Asia	Business	Empirical	Quantitative
(Kyriakou and Loukis, 2019)	Europe	Business	Empirical	Quantitative
(Laforet, 2016)	Europe	Business	Empirical	Quantitative
(C. Li and Ghirardi, 2019)	Europe	Business	Empirical	Quantitative
(J. Li and Yu, 2018)	Asia	Business and product	Empirical	Quantitative
(Linder and Torp, 2017)	Europe	Business	Empirical	Quantitative
(Liu et al., 2019)	Asia	Business	Empirical	Quantitative
(Lopez-Valeiras et al., 2016)	Europe	Business	Empirical	Quantitative
(Loukis, Arvanitis et al., 2017)	Europe	Business	Empirical	Quantitative
(Loukis, Kiriakou, et al., 2017)	Europe	Business	Empirical	Quantitative
(Ma, Gu, and Liu, 2017)	Asia	Business	Empirical	Quantitative
(Ma, Gu, Liu, et al., 2017)	Asia	Business	Empirical	Quantitative
(Makvandi and Nejad, 2018)	Asia	Business	Empirical	Quantitative
(Maldonado et al., 2019)	International	Business and product	Meta-analysis	Quantitative
(Manzaneque et al., 2017)	Europe	Business and product	Empirical	Quantitative
(Martin-Rios and Ciobanu, 2019)	Europe	Business	Empirical	Quantitative
(Martin-Rios et al., 2019)	Europe	Business and product	Empirical	Quantitative
(Marulanda-Grisales & Montoya-Restrepo, 2015)	South America	Business and product	Empirical	Quantitative
(Maslach, 2016)	North America	Product	Empirical	Quantitative
(Mehra, 2018)	North America	Business	Empirical	Mixed
(Mehra and Coleman, 2016)	North America	Business	Empirical	Mixed
(Mendi and Mudida, 2018)	Africa	Business	Empirical	Quantitative
(Min et al., 2016)	Asia	Business and product	Empirical	Quantitative
(Mokhber et al., 2018)	Asia	Business	Empirical	Quantitative
(Mosey et al., 2017)	Europe	Business and product	Empirical	Quantitative
(Mothe et al., 2015a)	Europe	Business and product	Empirical	Quantitative
(Mothe et al., 2015b)	Europe	Business	Empirical	Quantitative
(Naranjo-Valencia et al., 2018)	South America	Business and product	Empirical	Quantitative
(Parahoo and Al-Nakeeb, 2001)	Asia	Business	Empirical	Quantitative
(Phillips et al., 2019)	Europe	Business	Empirical	Mixed
(Phornlaphatrachakorn, 2019)	Asia	Business	Empirical	Quantitative
(Prasad and Martens, 2015)	North America	Business and product	Empirical	Quantitative
(Radicic and Pinto, 2019)	Europe	Business and product	Empirical	Quantitative
(Rasheed et al., 2017)	Asia	Business	Empirical	Quantitative
(Rasool et al., 2019)	Asia	Business and product	Empirical	Quantitative
(Resende Junior and Fujihara, 2018)	South America	Business	Empirical	Mixed
(Rezaei et al., 2018a)	Asia	Business	Empirical	Quantitative
(Rezaei et al., 2018b)	Asia	Business and product	Empirical	Quantitative
(Santamaria Ramos and Madariaga Orozco, 2019)	South America	Business	Empirical	Quantitative
(Shafique et al., 2019)	Asia	Business	Empirical	Quantitative
(Shahzad et al., 2017)	Asia	Business and product	Empirical	Quantitative
(Shier and Handy, 2014)	North America	Business	Empirical	Mixed
(Shier et al., 2019)	North America	Business	Empirical	Quantitative
(Shin et al., 2018)	North America	Product	Empirical	Quantitative
(Simao and Franco, 2018)	Europe	Business	Empirical	Quantitative
(Soltani et al., 2019)	Asia	Business	Empirical	Quantitative
(Sutanto, 2017)	Asia	Business	Empirical	Quantitative
(Tortoriello et al., 2015)	International	Business	Empirical	Quantitative
(Torugsa and O'Donohue, 2019)	Europe	Business and product	Empirical	Quantitative
(Unceta et al., 2016)	Europe	Business	Empirical	Quantitative
(Unceta et al., 2017)	Europe	Business	Empirical	Quantitative
(Urban and Gaffurini, 2017)	Africa	Business	Empirical	Quantitative
(Vaculik et al., 2019)	Europe	Business and product	Empirical	Quantitative
(Waleed, 2015)	Africa	Business	Empirical	Quantitative
(D. Wang and Lam, 2019)	Asia	Business and product	Empirical	Quantitative
(Xia et al., 2018)	Asia	Business	Empirical	Quantitative
(Xu et al., 2019)	Asia	Business and product	Empirical	Quantitative
(T. Wang et al., 2015)	North America	Business	Empirical	Quantitative
(Y. Wang et al., 2019)	Asia	Business and product	Empirical	Quantitative
(Y. M. Wang and Wang, 2016)	Asia	Business	Empirical	Quantitative

Table 2. Findings from the Reviewed Sources (continued)

Reference	Source	Investigated innovation type	Study type	Method
(Yan et al., 2021)	Asia	Business	Empirical	Quantitative
(Yoo et al., 2018)	Asia	Business	Empirical	Quantitative
(Zhang et al., 2017)	North America	Business	Empirical	Quantitative
(F. Zhou and Gu, 2019)	Asia	Business and product	Empirical	Quantitative
(J. Zhou et al., 2017)	Asia	Business	Empirical	Quantitative
(Y. Zhou et al., 2019)	Asia	Business	Empirical	Quantitative
(Zollet and Back, 2015)	Europe	Business	Empirical	Quantitative
(Zuñiga-Collazos, 2018)	South America	Business	Empirical	Quantitative

Torner, 2018; García-Sánchez et al., 2018; Kittikunchotiwut, 2015; Maldonado et al., 2019; Min et al., 2016).

Promoting Innovation from Governance: Innovative Organizational Policies

Apart from being studied as a process, the incorporation of external knowledge into an organization can be seen as strategic commitment or a decision made by management, which makes it is a question of governance. The management team benefits the organization either directly by searching for external knowledge (Prasad & Martens, 2015) or indirectly by promoting collective orientation towards learning in the organization (Qian Chen & Liu, 2019).

Much research work has attempted to establish what kind of governance styles or what decisions that depend on top management can foster innovation in organizations. Innovation in governance is, in fact, the mechanism that allows an organization to fully benefit from technological innovations to improve its financial performance (Černe et al., 2015). Fierro Moreno and Martínez (2015) found that certain strategy-dependent innovation dimensions (or strategic innovation) serve to explain good performance in organizational-type innovations. Specifically, integrating process innovation and innovation management into an organizational strategy positively impacts the organizational innovations related to leadership, organizational commitment, and culture. It has also been proven that quality-oriented governance directly affects technological, organizational, and management innovation (F. Zhou & Gu, 2019), and the possession of internationally recognized standardization certificates leads to higher productivity (Calza et al., 2019).

Marulanda-Grisales and Montoya-Restrepo (2015) studied the impact of knowledge management to find that it benefits technological innovation. Reciprocally, the factors related to technological innovation (i.e., perceived benefits or complexity), and to organizational (i.e., culture or support from management) and competitive pressure are beneficial influences for implementing knowledge management systems into companies (Wang & Wang, 2016). Finally, the role of interactive management control systems has been investigated, which involves face-to-face discussion with superiors, subordinates, and colleagues about the data generated by the system, and accelerates organizational and process innovation (Lopez-Valeiras et al., 2016).

Other authors have delved into the impact of organizational policies on organizations by studying the role of the practices and measures promoted from the human resources or people management. Reward systems areas, mostly through extra remuneration, found widespread support in the literature as precedents for innovative and organizational performance (Chaubey & Sahoo, 2019b; Rasool et al., 2019; J. Zhou et al., 2017). However, other authors have pointed out that placing emphasis on this type of extrinsic rewards to promote innovation can have counterproductive effects on the organizational cultures that are not conservative (Choi et al., 2019). There are also reports about the dispersion of remuneration in an organization according to the position occupied by someone, which maintains an inverted U relation with participation in the organization and, in turn, contributes to greater innovation (T. Wang et al., 2015).

It has been pointed out that organizational participation can serve as a precedent for further innovation (T. Wang et al., 2015). In line with this, some research works have delved into the operation of this variable and related it to the implementation of High Performance Work Systems (HPWS) (Rasheed et al., 2017). More specifically, implementing such systems has a positive impact on innovative performance when associated with participation mechanisms according to the organization's intellectual capital level. Thus in organizations with low intellectual capital, HPWS enhance innovation when combined with more direct participation mechanisms. For organizations with high intellectual capital, implementing participatory governance is more beneficial (Y. Zhou et al., 2019).

Promotion and professional development opportunities are another measure that contributes to improve people's innovative performance (Rasool et al., 2019; J. Zhou et al., 2017). Likewise, making efforts in the development of those people who already occupy management positions, through more autonomy (Linder & Torp, 2017) or the acquisition of ambidextrous capacity (Choi et al., 2019), also benefits organizational outcomes in innovation. Investing in training activities for people in an organization is perhaps the variable that obtains the most empirical support as a valid measure to promote innovation (Chaubey & Sahoo, 2019b; Cui et al., 2016; Fernández Perea, 2019; Naranjo-Valencia et al., 2018).

Finally, there are other policies that also benefit innovative performance, such as investing resources in research and development (Dan et al., 2018), or the nature of the work to be carried out (J. Zhou et al., 2017). It has also been established that incorporating talent by hiring personnel positively impacts innovative capacity (Manzaneque et al., 2017; Rasool et al., 2019).

A final aspect that has gained relevance in recent years is the relation between sustainability and innovation. It has been proven that the environmental awareness of a company's CEO (Huang et al., 2019) or reducing the organization's environmental impact (García-Pozo et al., 2018) positively influences innovative performance as both increase the chances of an organization performing more R&D activities. In the same way, corporate social responsibility (CSR) can be used to promote ethnic diversity in an organization, and this variable has been related to better technological innovation outcomes (Bocquet et al., 2019).

By way of conclusion, lots of measures can be adopted by the senior management or departments responsible for managing organizations' human talent, and these measures and policies are closely intertwined with the organizational culture. Resende Junior and Fujihara (2018) stated that factors like R&D management or an innovation-oriented strategy are combined with an innovation-oriented culture and leadership.

Leadership and Work Teams

The behaviour of leaders of teams, departments, or organizations evidently impacts their subordinates' performance. In fact, the

leader's innovative behaviour alone can improve an organization's innovative outcome (Waleed, 2015). By promoting interactions between employees so they ask for advice, how individuals perceive culture can improve and can be better adopted (Heinze & Heinze, 2018). Leadership oriented to people's development can act as a mediator between adopting transactive memory systems, which allow knowledge sharing in an organization and the innovative performance of the latter (Kwon & Cho, 2016).

Transformational leadership has received solid empirical support as a promoter of organizational innovation (Ho & Fu, 2018), and this relation is moderated by people's ability to take risks and to experiment (Mokhber et al., 2018). A positive relation has been detected between this type of leadership and employee creativity, as mediated by intrinsic motivation and self-perception of creativity (Chaubey & Sahoo, 2019a; Chaubey et al., 2019). Other leadership styles have been investigated, such as ethical leadership, which also serves as a predictor of individual and organizational innovation (Shafique et al., 2019). Finally, fostering ambidextrous capacities in leaders from middle management, that is, exercising ambidextrous leadership, has positive effects for business innovation (Choi et al., 2019).

To conclude, the current organizational environment requires leaders who not only function as bosses who control and manage, but also catalyze change to maintain and improve organizations' innovative performance (Phornlaphatrachakorn, 2019).

Organizations' current trend to flattening in their organizational structure and to use work teams as work basic units is an indisputable fact. The literature has shown that specialization of roles in project teams in general, and the existence of an executive and active role in particular, help to mitigate uncertainty, which improves performance in an innovation project (Kim & Shim, 2016). In the teams field, the need for good learning behaviour has been proven (i.e., the processes of seeking and providing feedback, sharing information, and preparing relevant information for the task), and exploration activities and exploitation are complementary and produce better results (Blank & Naveh, 2019).

When working in virtual teams, temporary virtual teams have been found to better perform in well-documented and methodical tasks, but lack of a relationship between members in complex tasks takes its toll on team productivity. Compared to temporary teams, permanent virtual ones better perform complex tasks that require a higher level of relationship between members (Kauffmann & Carmi, 2019).

Individual Behaviour

A broad research field has studied the connections between individual innovation-oriented behaviour and specific variables to the organizational environment, such as leadership style, organizational culture and, of course, the organization's innovative performance. Thus employees' innovative behaviour has been empirically supported as mediators of the relation between HPWS and an organization's innovative performance (Fu et al., 2015). Research has also been conducted on how people can foster innovation by playing different roles. For example, those individuals who support, facilitate, and stimulate innovation in their colleagues adopt a role called a "catalyst", which allows research staff to obtain better results (Tortoriello et al., 2015).

Psychologically belonging to the organization and the empowerment of working people both have a positive effect on innovative individual behaviour. Furthermore, empowerment is a moderator for the relation between climate and organizational innovation (Liu et al., 2019).

The organizational environment can differently impact individuals through stressors of several natures. In line with this, a positive relation exists between challenging stressors (development opportunity, pressure from a supervisor, or having to meet a deadline for a task) and innovative behaviour sustained over time. Yet other stressors can act as obstacles (lack of clarity in responsibilities or conflicts with colleagues), which weighs down this type of behaviour. Self-perception of creativity acts as a mediator in these relations, while the organization's innovative climate moderates the relation between self-perception of creativity and sustained innovative behaviour (He et al., 2019).

Finally, some research works have highlighted the positive effect on new companies of the entrepreneur's passion to improve innovative performance and organizational performance (Ma, Gu, & Liu, 2017; Ma, Gu, Liu, et al., 2017).

Technology as Support for Innovation

Implementing and employing information and communication technologies (ICT) in an organization are closely related to either its innovative performance or the organizational-type innovations that occur (Divisekera & Nguyen, 2018; Quan Chen et al., 2020). Investing in ICT acquisition and hiring specialized personnel in its use positively impact ICT adoption in organizations (Loukis, Arvanitis, et al., 2017). In the corporate website context, the complexity and intensity of information, perceived benefits and management's support favour the greater diffusion of innovation in this means (Zollet & Back, 2015).

Of all the different technologies that can be placed at the service of organizational innovation thanks to information processing, adopting ERP (enterprise resource planning) stands out for being associated with better organizational performance. This relation is also mediated by the usability of both the system and user satisfaction (Kharuddin et al., 2015).

In the interorganizational collaboration context, cloud computing has been identified as a means to not only reduce costs, but to also increase organizations' capacities and flexibility (Loukis, Kyriakou, et al., 2017). The adoption of such technology by an organization is favoured by an ICT cost reduction strategy, the adoption of an innovation-oriented strategy, and management's support of an organization's ICT structure (Kyriakou & Loukis, 2019).

Organizations in the Environment: Cooperation with Other Entities and Open Innovation

A closely related field of study to absorptive capacity has emerged that investigates how to improve innovative results through cooperation or collaboration with other organizations, which has led to the term open innovation. Lichtenthaler and Lichtenthaler (2009) stated that absorption capacity is only one of the knowledge capacities available for open innovation that an organization must develop, together with transformative, connecting, and inventive capacity. Shin et al. (2018) linked these capacities with performance in companies' technological innovation.

Many authors have shown that organizations from different sectors and typologies (public institutions, start-ups, etc.) can benefit from interactions and collaborations. For instance, collaboration with citizens, universities, government organizations, industries in general, high-tech companies, and other organizations that are similar to them, professional associations or suppliers (Bandera & Thomas, 2019; Divisekera & Nguyen, 2018; Fuentes & Soto, 2015; Geldes, Heredia, et al., 2017; C. Li & Ghirardi, 2019; Parahoo & Al -Nakeeb, 2001; Radicic & Pinto, 2019). Despite the clear empirical support for its benefits, this process is not exempt of difficulties. For instance, the difficulty of social organizations to integrate and implement the knowledge generated by collaboration with other organizations into their processes has been verified (Phillips et al., 2019).

In the same direction, abundant research demonstrates the benefits of technological and non-technological innovation to incorporate external knowledge into organizations because it complements internal research activities (Anzola-Román et al., 2018; Fernández Perea, 2019; Hartono & Kusumawardhani, 2018; Simao & Franco, 2018). However, it has also been established that oversearching for external knowledge can negatively affect innovative performance (Hartono & Kusumawardhani, 2018). Similarly, exploration activities to incorporate new knowledge have been shown to be complementary to exploitation activities performed to improve innovative performance (Guisado-González et al., 2017; Torugsa & O'Donohue, 2019).

Al-Busaidi and Olfman (2017) found that factors related to knowledge workers and the support received from colleagues largely determine these workers' intention to share knowledge through interorganizational systems designed for this purpose. They suggested that fostering a knowledge-oriented culture, a structure designed for this purpose and technological skills, can indirectly facilitate these knowledge exchange flows between workers from different organizations.

Conclusion

Proposal: The Model of Knowledge-Sharing Organizations

Based on the analyzed articles, this paper proposes the model of Knowledge-Sharing Organizations as an opportunity to address organizational transformation from three levels that allow holistic intervention in an organization's innovative capacity.

Level 1 – Innovative Culture and Governance

The examined results are consistent in stating that cultures which promote more innovation are flexible, proactive, change-oriented, and long-term. Orientation to the market or abroad must be combined with caring for the internal dimension, which can be achieved through participation mechanisms. Finally, the organization must develop the capacity to absorb or incorporate knowledge from outside, and must share it so it can be distributed inside the organization. Incorporating intellectual capital is key in this regard.

Organizations can develop a series of strategies that allow them to develop this type of culture and capabilities. Implementing quality and knowledge management systems has positive effects on innovative capacity. Likewise, investing in research activities or orientation towards sustainability are also characteristics of innovative organizations.

Attention being paid to the organization's internal dimension is clearly translated in terms of people management policies. Indeed, incentives and rewards can be used to promote the workforce's innovative behaviour. However, as employing extrinsic motivators can be counterproductive, it is necessary to accompany them with opportunities that generate intrinsic motivation towards motivation. Training people, as well as the existence of professional development and progress opportunities, move in this last direction.

Level 2 – Leadership, Teams and People

In line with the conclusions drawn so far, leadership oriented towards the development of people, which is ambidextrous (i.e., it encourages both exploration and exploitation activities), transformational, and ethical, is adequate for promoting innovation in subordinates.

In work teams, learning behaviour is a variable that is clearly supported as the predecessor of innovative performance. The specialization and structuring of team roles can be used to improve team performance. However, no study has dealt with these elements to explain their operation in detail along with other aspects like the social processes that occur in teams.

At the individual level, psychological belonging to an organization and empowerment are variables that facilitate innovation-oriented behaviour. Nevertheless, this individual performance is also influenced by organizational variables like the amount and type of stressors present in the environment.

Level 3 – Technological Tools for Innovation

Although many technology types are placed at the service of innovation, this work focuses on the role of ICT as facilitators to create and distribute knowledge within and between organizations. Thus the drawn conclusions are not exclusively applicable to organizations in technology sectors. Apart from certain specific practices like employing ERP software, it has been found that investing in ICT and hiring specialized personnel in their use contribute to more innovation in organizations. In addition, the usability of the implemented tools and staff's satisfaction with them mediate the positive effects of ICT on organizational performance.

Discussion and Some Future Directions

This paper proposes an explanatory model of innovation in the organizational context from the organizational psychology perspective and continues the work of Ayestarán (2017) by focusing on the variables that intervene in the psychological, social, and cultural spaces that exist in all organizations merely because they are made up of people. The three differentiated levels in the model intend to collect all the elements that determine organizations' innovative in the culture field, governance and people's interactions with one another, with their leaders or subordinates, and also with the surrounding environment. A technological level is added to take into account the psychological and social aspects that come into play when employing technologies designed to transmit and generate information.

Future Directions

It is firstly necessary to determine a series of cultural variables that can be operationalized and measured. For example, orientation to, or support for, change has proven effective in promoting innovation in organizations. This support for change can translate into organizations' greater flexibility, participation, and horizontality instead of a rigid consolidated hierarchy. An organization can also focus on developing innovations by taking into account both its internal (organization of work, leadership, etc.) and external (relationships with agents in the environment, communication abroad, etc.) dimensions. The cited variables (support for change, flexibility, participation, horizontality, and external and internal orientation) are completed with a final organizational culture characteristic that guarantees the conversion of declared values into practiced values: transparency.

Secondly, it is necessary to find an explanatory model for the psychosocial level that connects the cultural elements of our model with people's individual performance. As this connection cannot occur in a space other than work teams, future research should focus on this environment as an enabler of organizational change.

Thirdly, using technology to create and distribute knowledge is, and will be, the most subject level to evolution in this model as a result of the unstoppable development of new ICT. In fact there are currently two major issues in the area that need addressing: using big data and applying artificial intelligence. Big data provide a large and varied number of very accurate data at breathtaking speed.

Recent studies (e.g., Ghasemaghaei & Calic, 2019, 2020) have found that the most important feature of big data to increase performance innovation is not the large amounts of data, but the speed at which data are acquired. Other studies (e.g., Ghasemaghaei & Turel, 2020) have shown that employing big data can lower the quality of company decisions.

Given the large amounts of data that big data offer and the possible problems that their management can lead to, artificial intelligence has emerged as an indispensable resource for modern organizations. The artificial intelligence in charge of handling and managing the overwhelming data volumes that stem from employing big data allows increased operational performance (Dubey et al., 2020). To this end, artificial intelligence utilizes many techniques, of which the most widely used ones are ANNs (used for information processing that allows patterns or models to be found), FL/modelling (it provides qualitative information that can be used by people to make inferences or decisions), ABS and MAS (model-based agents that autonomously simulate actions and interactions, and are capable of solving problems), or Gas (algorithm-based search technique for problem solving) (Toorajipour et al., 2020). Employing big data and artificial intelligence opens up a range of possibilities for today's organizations, albeit one not exempted of risks. Analyzing how these elements are incorporated into the organizations that create shared knowledge is of vital importance to achieve not only technological and economical, but also social, innovation types.

Bearing in mind the COVID-19 situation, management teams have begun to very quickly exercise e-leadership. E-leadership has been defined as "a social influence process embedded in both proximal and distal contexts mediated AITs [advanced information technologies] that produce a change in attitudes, feelings, thinking, behavior, and performance" (Avolio et al., 2014, p 107). The Six E-Competency (SEC) Model (Van Wart et al., 2017) contemplates the following competencies that an e-leadership must possess: e-communication skills (the leader's ability to manage workload, lack of communication, and clarity in virtual communication); e-social skills (a leader's ability to offer their employees support); e-change management skills (understood as the ability to provide techniques that allow to adapt to using technologies); e-tech savvy (based on being aware about new ICT on the market, and combining them with more traditional methods and technological security); e-team building skills (ability to motivate teams, recognize the achievements and work done, and apply team accountability); e-trustworthiness (creating a climate of trust in the leader, work-life balance and diversity management). Future research should examine how all the competencies required of leaders in the organizations that create shared knowledge behave for both organizations' performance and innovation.

Finally, cooperation between organizations for innovative purposes (called open innovation) will be an interesting way to develop this model in the future. Cooperation among organizations, institutions or collectives has been a constant throughout the history of humanity. However, in the globalized hyperconnected world that we live in today, alliances have become an imperative for organizations that wish to survive in a tremendously competitive environment.

Limitations

With all this, the present work also intends to generate a model that can help organizations of all kinds to improve their innovative performance by applying the conclusions set out. However, this work has a series of limitations that must be taken into account, some of which actually open up new research lines to be addressed in the future. The main limitation lies in the followed methodology. Although a narrative review is adequate for carrying out a general exploration of a wide knowledge area, which was actually the case, lack of a statistical meta-analysis of the selected articles limited the reliability of the obtained conclusions because it was not possible to statistically compare the results of the included articles. This limitation was mitigated by establishing an inclusion criterion for the analysis: the found articles followed a quantitative methodology to, thus, guarantee the validity of each individually reviewed article.

Although many research works that have worked on culture and governance levels were found, not many studies have dealt with the psychosocial (except some research lines about leadership) and technological levels. This might be due to how the search terms were formulated, and also to the employed database types. In any case, this work confirms that the literature lacks work about an explanatory model of innovation that takes into account the establishment of cultural, psychosocial, and technological elements in organizations, despite the obvious links that connect these study levels with organizational reality.

Conflict of Interest

The authors of this article declare no conflict of interest.

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"Economic and technological factors are important for the survival of organizations, but they are not enough to foster the innovation that makes them competitive in the market.... To innovate you have to build shared and interdisciplinary knowledge." (S. Ayestarán).

References

References marked with an asterisk indicate studies included in the meta-analysis.

*Abdi, K., Mardani, A., Senin, A. A., Tupenaite, L., Naimaviciene, J., Kanapeckiene, L., & Kutut, V. (2018). The effect of knowledge management, organizational culture and organizational learning on innovation in automotive industry. *Journal of Business Economics and Management, 19*(1), 1-19. https://doi.org/10.3846/jbem.2018.1477

Ahmad, F. (2018). Knowledge sharing in a non-native language context: Challenges and strategies. *Journal of Information Science, 44*(2), 248-264. https://doi.org/10.1177/0165551516683607

Ahmad, F., & Karim, M. (2019). Impacts of knowledge sharing: A review and directions for future research. *Journal of Workplace Learning, 31*(3), 207-230. https://doi.org/10.1108/JWL-07-2018-0096

*Al-Busaidi, K. A., & Olfman, L. (2017). Knowledge sharing through inter-organizational knowledge sharing systems. *VINE Journal of Information and Knowledge Management Systems, 47*(1), 110-136. https://doi.org/10.1108/VJIKMS-05-2016-0019

*Antonioli, D., & Della Torre, E. (2016). Innovation adoption and training activities in SMEs. *International Journal of Human Resource Management, 27*(3), 311-337. https://doi.org/10.1080/09585192.2015.1042901

*Anzola-Román, P., Bayona-Sáez, C., & García-Marco, T. (2018). Organizational innovation, internal R&D and externally sourced innovation practices: Effects on technological innovation outcomes. *Journal of Business Research, 91*(C), 233-247. https://doi.org/10.1016/j.jbusres.2018.06.014

Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: Re-examining transformations in leadership source and transmission. *The Leadership Quarterly, 25*(1), 105-131. https://doi.org/10.1016/j.leaqua.2013.11.003

Ayestarán, S. (2017). Organizaciones basadas en construcción del conocimiento compartido. In J. J. Arróspide, C. Martínez-Taboada, & J. F. Morales (Eds.), *Innovación, transparencia y comunicación en grupos y organizaciones* (pp. 107-122). Sanz y Torres.

*Azar, G., & Ciabuschi, F. (2017). Organizational innovation, technological innovation, and export performance: The effects of innovation

radicalness and extensiveness. *International Business Review, 26*(2), 324-336. https://doi.org/10.1016/j.ibusrev.2016.09.002

*Bandera, C., & Thomas, E. (2019). The role of innovation ecosystems and social capital in startup survival. *IEEE Transactions on Engineering Management, 66*(4), 542-551. https://doi.org/10.1109/TEM.2018.2859162

*Bartoloni, E., & Baussola, M. (2016). Does technological innovation undertaken alone have a real pivotal role? Product and marketing innovation in manufacturing firms. *Economics of Innovation and New Technology, 25*(2), 91-113. https://doi.org/10.1080/10438599.2015.1057002

*Baussola, M. L., & Bartoloni, E. (2016). Driving business performance: Innovation complementarities and persistence patterns. *DISCE - Quaderni del Dipartimento di Scienze Economiche e Sociali (*Quaderno N. 113). Università Cattolica del Sacro Cuore, Dipartimenti e Istituti di Scienze Economiche (DISCE). https://doi.org/10.2139/ssrn.2746037

*Begonja, M., Čićek, F., Balboni, B., & Gerbin, A. (2016). Innovation and business performance determinants of SMEs in the Adriatic region that introduced social innovation. *Economic Research-Ekonomska Istrazivanja, 29*(1), 1136-1149. https://doi.org/10.1080/1331677X.2016.1213651

*Beuren, I. M., Souza, G. E. de, & Bernd, D. C. (2019). Effects of budget system use on innovation performance. *European Journal of Innovation Management, 24*(1), 109-129. https://doi.org/10.1108/EJIM-06-2019-0166

*Blank, T. H., & Naveh, E. (2019). Competition and complementation of exploration and exploitation and the achievement of radical innovation: The moderating effect of learning behavior and promotion focus. *IEEE Transactions on Engineering Management, 66*(4), 598-612. https://doi.org/10.1109/TEM.2018.2849319

*Bocquet, R., Le Bas, C., Mothe, C., & Poussing, N. (2019). Strategic CSR for innovation in SMEs: Does diversity matter? *Long Range Planning, 52*(6), Article 101913. https://doi.org/10.1016/j.lrp.2019.101913

Bondarouk, T., & Olivas-Luján, M. R. (2014). *Human resource management, social innovation and technology.* Emerald Group Publishing Limited.

*Calisir, F., Gumussoy, C. A., Basak, E., & Gurel, G. (2016). Effect of organizational learning, transformational leadership, and market orientation on firm performance. *International Journal of Innovation and Technology Management, 13*(3), 1-22. https://doi.org/10.1142/S0219877016400010

*Calza, E., Goedhuys, M., & Trifković, N. (2019). Drivers of productivity in Vietnamese SMEs: The role of management standards and innovation. *Economics of Innovation and New Technology, 28*(1), 23-44. https://doi.org/10.1080/10438599.2018.1423765

Cameron, K., & Quinn, R. (1999). *Diagnosing and changing organizational culture.* Addison-Wesley.

*Campanella, F., Della Peruta, M. R., & Del Giudice, M. (2017). The effects of technological innovation on the banking sector. *Journal of the Knowledge Economy, 8*(1), 356-368. https://doi.org/10.1007/s13132-015-0326-8

*Casini, A., Bensliman, R., Callorda Fossati, E., Degavre, F., & Mahieu, C. (2018). Is social innovation fostering satisfaction and well-being at work? Insights from employment in social enterprises providing long-term eldercare services. *Voluntas, 29*(6), 1244-1260. https://doi.org/10.1007/s11266-018-0001-3

*Černe, M., Jaklič erne, M., & Šernekerlavaj, M. (2015). Management innovation enters the game: Re-considering the link between technological innovation and financial performance. *Innovation: Management, Policy and Practice, 17*(4), 429-449. https://doi.org/10.1080/14479338.2015.1126530 https://doi.org/10.1109/TEM.2018.2845343

*Chaubey, A., & Sahoo, C. K. (2019a). Enhancing organizational innovation in Indian automobile industry. *International Journal of Innovation Science, 11*(1), 82-101. https://doi.org/10.1108/IJIS-02-2018-0022

*Chaubey, A., & Sahoo, C. K. (2019b). Role of HR interventions in enhancing employee creativity and organizational innovation: An empirical study. *Industrial and Commercial Training, 51*(3), 195-206. https://doi.org/10.1108/ICT-09-2018-0079

*Chaubey, A., Sahoo, C. K., & Khatri, N. (2019). Relationship of transformational leadership with employee creativity and organizational innovation: A study of mediating and moderating influences. *Journal of Strategy and Management, 12*(1), 61-82. https://doi.org/10.1108/JSMA-07-2018-0075

*Chen, Qian, & Liu, Z. (2019). How does openness to innovation drive organizational ambidexterity? The mediating role of organizational learning goal orientation. *IEEE Transactions on Engineering Management, 66*(2), 156-169. https://doi.org/10.1109/TEM.2018.2834505

*Chen, Quan, Wang, C. H., & Huang, S. Z. (2020). Effects of organizational innovation and technological innovation capabilities on firm performance: Evidence from firms in China's Pearl River Delta. *Asia Pacific Business Review, 26*(1), 72-96. https://doi.org/10.1080/13602381.2019.1592339

*Choi, B., Ravichandran, T., & O Connor, G. C. (2019). Organizational conservatism, strategic human resource management, and breakthrough innovation. *IEEE Transactions on Engineering Management, 66*(4), 529-541. https://doi.org/10.1109/TEM.2018.2845343

*Cleven, A., Mettler, T., Rohner, P., & Winter, R. (2016). Healthcare quality innovation and performance through process orientation: Evidence from general hospitals in Switzerland. *Technological Forecasting and Social Change, 113*(part B), 386-395. https://doi.org/10.1016/j.techfore.2016.07.007

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*(1), 128-152. https://doi.org/10.2307/2393553

*Corsi, C., Prencipe, A., & Capriotti, A. (2019). Linking organizational innovation, firm growth and firm size. *Management Research, 17*(1), 24-49. https://doi.org/10.1108/MRJIAM-06-2017-0760

*Cozzarin, B. P. (2017). Impact of organizational innovation on product and process innovation. *Economics of Innovation and New Technology, 26*(5), 405-417. https://doi.org/10.1080/10438599.2016.1204779

*Cui, Y., Jiao, J., & Jiao, H. (2016). Technological innovation in Brazil, Russia, India, China, and South Africa (BRICS). *Technological Forecasting and Social Change, 107*(C), 28-36. https://doi.org/10.1016/j.techfore.2016.02.001

*Damanpour, F., Sanchez-Henriquez, F., & Chiu, H. H. (2018). Internal and external sources and the adoption of Innovations in organizations. *British Journal of Management, 29*(4), 712-730. https://doi.org/10.1111/1467-8551.12296

*Dan, S. M., Spaid, B. I., & Noble, C. H. (2018). Exploring the sources of design innovations: Insights from the computer, communications and audio equipment industries. *Research Policy, 47*(8), 1495-1504. https://doi.org/10.1016/j.respol.2018.05.004

*Del Carpio Gallegos, J. F., & Torner, F. M. (2018). Absorptive capacity and innovation in low-tech companies in emerging economies. *Journal of Technology Management and Innovation, 13*(2), 3-11. https://doi.org/10.4067/S0718-27242018000200003

*Delgado, M., & Martín, G. (2006). Carácter emprendedor, capital intelectual e innovación de producto. Un estudio exploratorio en empresas industriales de alta y media-alta tecnología en España. *Economía Industrial, 399*, 103-112.

*Dietrich, M., Znotka, M., Guthor, H., & Hilfinger, F. (2016). Instrumental and non-instrumental factors of social innovation adoption. *Voluntas, 27*(4), 1950-1978. https://doi.org/10.1007/s11266-015-9639-2

*Divisekera, S., & Nguyen, V. K. (2018). Drivers of innovation in tourism: An econometric study. *Tourism Economics, 24*(8), 998-1014. https://doi.org/10.1177/1354816618794708

Dubey, R., Gunasekaran, A., Childe, S. J., Bryde, D. J., Giannakis, M., Foropon, C., & Hazen, B. T. (2020). Big data analytics and artificial intelligence pathway to operational performance under the effects of entrepreneurial orientation and environmental dynamism: A study of manufacturing organisations. *International Journal of Production Economics, 226,* Article 107599. https://doi.org/10.1016/j.ijpe.2019.107599

*Eidizadeh, R., Salehzadeh, R., & Chitsaz Esfahani, A. (2017). Analysing the role of business intelligence, knowledge sharing and organisational innovation on gaining competitive advantage. *Journal of Workplace Learning, 29*(4), 250-267. https://doi.org/10.1108/jwl-07-2016-0070

*Escobar-Rodríguez, T., & Bartual-Sopena, L. (2015). Impact of cultural factors on attitude toward using ERP systems in public hospitals. *Revista de Contabilidad-Spanish Accounting Review, 18*(2), 127-137. https://doi.org/10.1016/j.rcsar.2014.04.002

European Commission. (1995). Green paper on innovation. Brussels: Office for Official Publications of the European Communities. http://aei.pitt.edu/id/eprint/1218

Farooq, R. (2018). A conceptual model of knowledge sharing. *International Journal of Innovation Science, 10*(2), 238-260. https://doi.org/10.1108/IJIS-09-2017-0087

*Fernández Perea, M. P. (2019). Determinantes de las innovaciones organizacionales: factores y obstáculos en la empresa española. *ESIC MARKET Economic and Business Journal, 50*(1), 179-201. https://doi.org/10.7200/esicm.162.0501.4e

*Fierro Moreno, E., & Martínez, M. (2015). La innovación estratégica como predictora de la innovación organizativa en las instituciones de educación superior en México. *Innovación Educativa, 15*(69), 141-161.

*Fu, N., Flood, P. C., Bosak, J., Morris, T., & O'Regan, P. (2015). How do high performance work systems influence organizational innovation in professional service firms? *Employee Relations, 37*(2), 209-231. https://doi.org/10.1108/ER-10-2013-0155

*Fuentes, R. A., & Soto, A. R. (2015). Innovaciones no tecnológicas en empresas agrícolas chilena: ¿Qué motiva la decisión de innovar y su propensión? *Ciencia e Investigacion Agraria, 42*(2), 171-179. https://doi.org/10.4067/S0718-16202015000200004

*García-Pozo, A., Marchante-Mera, A. J., & Campos-Soria, J. A. (2018). Innovation, environment, and productivity in the Spanish service sector: An implementation of a CDM structural model. *Journal of Cleaner Production, 171*, 1049-1057. https://doi.org/10.1016/j.jclepro.2017.10.087

*García-Sánchez, E., García-Morales, V. J., & Martín-Rojas, R. (2018). Influence of technological assets on organizational performance through absorptive capacity, organizational innovation and internal labour flexibility. *Sustainability (Switzerland), 10*(3), Article 770. https://doi.org/10.3390/su10030770

*Geldes, C., Felzensztein, C., & Palacios-Fenech, J. (2017). Technological and non-technological innovations, performance and propensity to innovate across industries: The case of an emerging economy.pdf. *Industrial Marketing Management, 61,* 55-66. https://doi.org/10.1016/j.indmarman.2016.10.010

*Geldes, C., Heredia, J., Felzensztein, C., & Mora, M. (2017). Proximity as determinant of business cooperation for technological and non-technological innovations: A study of an agribusiness cluster. *Journal of Business and Industrial Marketing, 32*(1), 167-178. https://doi.org/10.1108/JBIM-01-2016-0003

Ghasemaghaei, M., & Calic, G. (2019). Does big data enhance firm innovation competency? The mediating role of data-driven insights. *Journal of Business Research, 104*(C), 69-84. https://doi.org/10.1016/j.jbusres.2019.07.006

Ghasemaghaei, M., & Calic, G. (2020). Assessing the impact of big data on firm innovation performance: Big data is not always better data. *Journal of Business Research, 108,* 147-162. https://doi.org/10.1016/j.jbusres.2019.09.062

Ghasemaghaei, M., & Turel, O. (2020). Possible negative effects of big data on decision quality in firms: The role of knowledge hiding behaviours. *Information Systems Journal, 31*(2), 268-293. https://doi.org/10.1111/isj.12310

*González-Blanco, J., Coca-Pérez, J. L., & Guisado-González, M. (2019). Relations between technological and non-technological innovations in the service sector. *Service Industries Journal, 39*(2), 134-153. https://doi.org/10.1080/02642069.2018.1474876

*Griffith, J. D., Zhang, X., Sun, J., & Pershing, J. (2017). Strengthening organizational practice. *Journal of Nonprofit Education & Leadership, 7*(4), 327-337. https://doi.org/10.18666/JNEL-2017-V7-I4-8642

*Guisado-González, M., González-Blanco, J., & Coca-Pérez, J. L. (2017). Analyzing the relationship between exploration, exploitation and organizational innovation. *Journal of Knowledge Management, 21*(5), 1142-1162. https://doi.org/10.1108/JKM-01-2017-0039

*Guo, H., Shen, R., & Su, Z. (2019). The impact of organizational legitimacy on product innovation: A comparison between new ventures and established firms. *IEEE Transactions on Engineering Management, 66*(1), 73-83. https://doi.org/10.1109/TEM.2018.2803061

Hall-Andersen, L. B., & Broberg, O. (2014). Learning processes across knowledge domains. *Journal of Workplace Learning, 26*(2), 91-108. https://doi.org/10.1108/JWL-08-2013-0053

Harayama, Yuko (2017). Society 5.0: Aiming for a new human-centered society. *Hitachi Review, 66*(6), 553 - 559. http://www.hitachi.com/rev/archive/2017/r2017_06/pdf/p08-13_TRENDS.pdf

*Hartono, A., & Kusumawardhani, R. (2018). Searching widely or deeply? The impact of open innovation on innovation and innovation performance among Indonesian manufacturing firms. *Journal of Indonesian Economy and Business, 33*(2), 123-142. https://doi.org/10.22146/jieb.29218

*He, P. X., Wu, T. J., Zhao, H. D., & Yang, Y. (2019). How to motivate employees for sustained innovation behavior in job stressors? A cross-level analysis of organizational innovation climate. *International Journal of Environmental Research and Public Health, 16*(23), Article 4608. https://doi.org/10.3390/ijerph16234608

*Heinze, K. L., & Heinze, J. E. (2018). Individual innovation adoption and the role of organizational culture. *Review of Managerial Science, 14*(3), 561-586. https://doi.org/10.1007/s11846-018-0300-5

*Heredia Perez, J. A., Geldes, C., Kunc, M. H., & Flores, A. (2019). New approach to the innovation process in emerging economies: The manufacturing sector case in Chile and Peru. *Technovation, 79,* 35-55. https://doi.org/10.1016/j.technovation.2018.02.012

*Hervas-Oliver, J. L., Ripoll-Sempere, F., & Moll, C. B. (2016). Does management innovation pay-off in SMEs? Empirical evidence for Spanish SMEs. *Small Business Economics, 47*(2), 507-533. https://doi.org/10.1007/s11187-016-9733-x

*Hervas-Oliver, J. L., & Sempere-Ripoll, F. (2015). Disentangling the influence of technological process and product innovations. *Journal of Business Research, 68*(1), 109-118. https://doi.org/10.1016/j.jbusres.2014.04.010

*Hervas-Oliver, J. L., Sempere-Ripoll, F., Boronat-Moll, C., & Rojas-Alvarado, R. (2018). On the joint effect of technological and management innovations on performance: Increasing or diminishing returns? *Technology Analysis and Strategic Management, 30*(5), 569-581. https://doi.org/10.1080/09537325.2017.1343462

Hislop, D. (2013). *Knowledge management in organizations: A critical introduction.* Oxford University Press.

*Ho, S. Y., & Fu, H. J. (2018). The impacts of leadership styles on work performances and organizational innovations in the financial distress industry. *Revista de Cercetare si Interventie Sociala, 60,* 25-38.

*Hsu, H. Y., Liu, F. H., Tsou, H. T., & Chen, L. J. (2019). Openness of technology adoption, top management support and service innovation: A social innovation perspective. *Journal of Business and Industrial Marketing, 34*(3), 575-590. https://doi.org/10.1108/JBIM-03-2017-0068

*Huang, Q., Chen, X., Zhou, M., Zhang, X., & Duan, L. (2019). How does CEO's environmental awareness affect technological innovation? *International Journal of Environmental Research and Public Health, 16*(2), Article 261. https://doi.org/10.3390/ijerph16020261

Hussein, A. T. T., Singh, S. K., Farouk, S., & Sohal, A. S. (2016). Knowledge sharing enablers, processes and firm innovation capability. *Journal of Workplace Learning, 28*(8), 484-495. https://doi.org/10.1108/JWL-05-2016-0041

Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input process-output models to IMOI models. Annual *Review of Psychology, 56,* 517-543. https://doi.org/10.1146/annurev.psych.56.091103.070250

*Jiang, Y., Jiang, Y., & Nakamura, W. (2019). Human capital and organizational performance based on organizational innovation: Empirical study on China. *Revista de Cercetare si Interventie Sociala, 64,* 156-166. https://doi.org/10.33788/rcis.64.13

*Juneja, J. A., & Amar, A. D. (2018). An organizational capital decision model for knowledge-intensive organizations. *IEEE Transactions on Engineering Management, 65*(3), 417-433. https://doi.org/10.1109/TEM.2018.2790898

*Kauffmann, D., & Carmi, G. (2019). A comparative study of temporary and ongoing teams on e-environment. *IEEE Transactions on Professional Communication, 62*(2), 148-164. https://doi.org/10.1109/TPC.2019.2900909

*Kharuddin, S., Foong, S. Y., & Senik, R. (2015). Effects of decision rationality on ERP adoption extensiveness and organizational performance. *Journal of Enterprise Information Management, 28*(5), 658-679. https://doi.org/10.1108/JEIM-02-2014-0018

*Kim, Y., & Shim, D. (2016). Division of labour in championing activities for technological innovations in Korea: Patterns and performance consequences. *Asian Journal of Technology Innovation, 24*(1), 1-21. https://doi.org/10.1080/19761597.2016.1160569

*Kittikunchotiwut, P. (2015). The role of social capital on absorptive capacity and organizational innovation. *Journal of Business and Retail Management Research, 10*(1), 27-39.

*Kwon, K., & Cho, D. (2016). How transactive memory systems relate to organizational innovation: The mediating role of developmental leadership. *Journal of Knowledge Management, 20*(5), 1025-1044. https://doi.org/10.1108/JKM-10-2015-0413

*Kyriakou, N., & Loukis, E. N. (2019). Do strategy, processes, personnel and technology affect firm's propensity to adopt cloud computing?: An empirical investigation. *Journal of Enterprise Information Management, 32*(3), 517-534. https://doi.org/10.1108/JEIM-06-2017-0083

*Laforet, S. (2016). Effects of organisational culture on organisational innovation performance in family firms. *Journal of Small Business and Enterprise Development, 23*(2), 379-407. https://doi.org/10.1108/JSBED-02-2015-0020

*Li, C., & Ghirardi, S. (2019). The role of collaboration in innovation at cultural and creative organisations. The case of the museum. *Museum Management and Curatorship, 34*(3), 273-289. https://doi.org/10.1080/09647775.2018.1520142

*Li, J., & Yu, D. (2018). The path to innovation: The antecedent perspective of intellectual capital and organizational character. *Frontiers in Psychology, 9,* Article 2445. https://doi.org/10.3389/fpsyg.2018.02445

Lichtenthaler, U., & Lichtenthaler, E. (2009). A capability-based framework for open innovation: Complementing absorptive capacity. *Journal of Management Studies, 46*(8), 1315-1338. https://doi.org/10.1111/j.1467-6486.2009.00854.x

Lin, H. F. (2007). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower, 28*(3-4), 315-332. https://doi.org/10.1108/01437720710755272

*Linder, S., & Torp, S. S. (2017). Middle managers' engagement in autonomous strategic actions: Does it really matter how top managers use budgets? *IEEE Transactions on Engineering Management, 64*(4), 450-463. https://doi.org/10.1109/TEM.2017.2693295

*Liu, F., Chow, I. H. S., Zhang, J. C., & Huang, M. (2019). Organizational innovation climate and individual innovative behavior: Exploring the moderating effects of psychological ownership and psychological empowerment. *Review of Managerial Science, 13*(4), 771-789. https://doi.org/10.1007/s11846-017-0263-y

*Lopez-Valeiras, E., Gonzalez-Sanchez, M. B., & Gomez-Conde, J. (2016). The effects of the interactive use of management control systems on process and organizational innovation. *Review of Managerial Science, 10*(3), 487-510. https://doi.org/10.1007/s11846-015-0165-9

*Loukis, E., Arvanitis, S., & Kyriakou, N. (2017). An empirical investigation of the effects of firm characteristics on the propensity to adopt cloud computing. *Information Systems and E-Business Management, 15*(4), 963-988. https://doi.org/10.1007/s10257-017-0338-y

*Loukis, E., Kyriakou, N., Pazalos, K., & Popa, S. (2017). Inter-organizational innovation and cloud computing. *Electronic Commerce Research, 17*(3), 379-401. https://doi.org/10.1007/s10660-016-9239-2

*Ma, C., Gu, J., & Liu, H. (2017). Entrepreneurs' passion and new venture performance in China. *International Entrepreneurship and Management Journal, 13*(4), 1043-1068. https://doi.org/10.1007/s11365-017-0435-x

*Ma, C., Gu, J., Liu, H., & Zhang, Q. (2017). Entrepreneurial passion and organizational Innovation: The moderating role of the regulatory focus of entrepreneurs. *Journal of Developmental Entrepreneurship, 22*(3), 1-19. https://doi.org/10.1142/S1084946717500200

*Makvandi, N., & Nejad, A. H. R. (2018). Investigating the mediating role of organizational innovation and learning orientation in the relationship between market orientation and business performance. *Revista Publicando, 15*(2), 402-421.

*Maldonado, T., Salaiz, A., Vera, D., & Keller, R. T. (2019). Taking stock of the absorptive capacity construct and its dimensions in the context of technological innovation: A meta-analytic approach. *IEEE Transactions on Engineering Management, 66*(2), 193-207. https://doi.org/10.1109/TEM.2018.2817388

*Manzaneque, M., Ramírez, Y., & Diéguez-Soto, J. (2017). Intellectual capital efficiency, technological innovation and family management. *Innovation: Management, Policy and Practice, 19*(2), 167-188. https://doi.org/10.1080/14479338.2016.1272828
*Martin-Rios, C., & Ciobanu, T. (2019). Hospitality innovation strategies: An analysis of success factors and challenges. *Tourism Management, 70,* 218-229. https://doi.org/10.1016/j.tourman.2018.08.018
*Martin-Rios, C., Parga-Dans, E., & Pasamar, S. (2019). Innovation strategies and complementarity between innovation activities: The case of commercial archaeological firms. *Service Business, 13*(4), 695-713. https://doi.org/10.1007/s11628-019-00401-9
*Marulanda-Grisales, N., & Montoya-Restrepo, I.-A. (2015). Modelo para gestionar el conocimiento en el sector textil de Medellín, empleando dinámica de sistemas. *Semestre Económico, 18*(38), 161-190. https://doi.org/10.22395/seec.v18n38a6
*Maslach, D. (2016). Change and persistence with failed technological innovation. *Strategic Management Journal, 37*(4), 714-723. https://doi.org/10.1002/smj.2358
*Mehra, S. (2018). Using asset-based criterion to implement quality management philosophy in service operations to enhance business performance. *International Journal of Quality and Reliability Management, 35*(10), 2195-2211. https://doi.org/10.1108/IJQRM-12-2016-0223
*Mehra, S., & Coleman, J. T. (2016). Implementing capabilities-based quality management and marketing strategies to improve business performance. *International Journal of Quality and Reliability Management, 33*(8), 1124-1137. https://doi.org/10.1108/IJQRM-12-2014-0197
*Mendi, P., & Mudida, R. (2018). The effect on innovation of beginning informal: Empirical evidence from Kenya. *Technological Forecasting and Social Change, 131*, 326-335. https://doi.org/10.1016/j.techfore.2017.06.002
*Min, W. Z., Ling, K. C., & Piew, T. H. (2016). The effects of technological innovation, organizational innovation and absorptive capacity on product innovation: A structural equation modelling approach. *Asian Social Science, 12*(1), 199-222. https://doi.org/10.5539/ass.v12n1p199
*Mokhber, M., Khairuzzaman, W., & Vakilbashi, A. (2018). Leadership and innovation: The moderator role of organization support for innovative behaviors. *Journal of Management and Organization, 24*(1), 108-128. https://doi.org/10.1017/jmo.2017.26
*Mosey, S., Guerrero, M., & Greenman, A. (2017). Technology entrepreneurship research opportunities: Insights from across Europe. *Journal of Technology Transfer, 42*(1), 1-9. https://doi.org/10.1007/s10961-015-9462-3
*Mothe, C., Nguyen-Thi, U. T., & Nguyen-Van, P. (2015a). Assessing complementarity in organizational innovations for technological innovation: The role of knowledge management practices. *Applied Economics, 47*(29), 3040-3058. https://doi.org/10.1080/00036846.2015.1011320
*Mothe, C., Nguyen-Thi, U. T., & Nguyen-Van, P. (2015b). Complementarities in organizational innovation practices: Evidence from French industrial firms. *Economics of Innovation and New Technology, 24*(6), 569-595. https://doi.org/10.1080/10438599.2014.949416
*Naranjo-Valencia, J. C., Naranjo-Herrera, C. G., Serna-Gómez, H. M., & Calderón-Hernández, G. (2018). The relationship between training and innovation in companies. *International Journal of Innovation Management, 22*(2), Article 1850012. https://doi.org/10.1142/S1363919618500123
OECD/Eurostat (2018), Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg. https://doi.org/10.1787/9789264304604-en
*Parahoo, S. K., & Al-Nakeeb, A. A. (2001). Investigating antecedents of social innovation in public sector using a service ecosystem lens. *International Review on Public and Nonprofit Marketing, 16*(2-4), 235-253. https://doi.org/10.1007/s12208-019-00229-z
*Phillips, W., Alexander, E. A., & Lee, H. (2019). Going it alone won't work! The relational imperative for social innovation in social enterprises. *Journal of Business Ethics, 156*(2), 315-331. https://doi.org/10.1007/s10551-017-3608-1
*Phornlaphatrachakorn, K. (2019). Effects of transformational leadership, organisational learning and technological innovation on strategic management accounting in Thailand's financial institutions. *Asian Journal of Business and Accounting, 12*(1), 165-188. https://doi.org/10.22452/ajba.vol12no1.6
Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term? *The Journal of Socio-Economics, 38*(6), 878-885. https://doi.org/10.1016/j.socec.2009.02.011
Pot, F., Dhondt, S., & Oeij, P. (2012). Social Innovation of Work and Employment. *Challenge Social Innovation.* https://doi.org/10.1007/978-3-642-32879-4
Pot, F., & Vaas, F. (2008). Social innovation, the new challenge for Europe. *International Journal of Productivity and Performance Management, 57*(6), 468-473. https://doi.org/10.1108/17410400810893400
*Prasad, B., & Martens, R. (2015). Top management team advice-seeking and environmental competitiveness impacts on technological innovation. *International Journal of Technology Management, 69*(1), 77-92. https://doi.org/10.1504/IJTM.2015.071032
*Radicic, D., & Pinto, J. (2019). Collaboration with external organizations and technological innovations: Evidence from Spanish manufacturing firms. *Sustainability (Switzerland), 11*(9), Article 2479. https://doi.org/10.3390/su11092479
*Rasheed, M. A., Shahzad, K., Conroy, C., Nadeem, S., & Siddique, M. U. (2017). Exploring the role of employee voice between high-performance work system and organizational innovation in small and medium enterprises. *Journal of Small Business and Enterprise Development, 24*(4), 670-688. https://doi.org/10.1108/JSBED-11-2016-0185
*Rasool, S. F., Samma, M., Wang, M., Zhao, Y., & Zhang, Y. (2019). How human resource management practices translate into sustainable organizational performance: The mediating role of product, process and knowledge innovation. *Psychology Research and Behavior Management, 12*, 1009-1025. https://doi.org/10.2147/PRBM.S204662
Razak, N. A., Pangil, F., Zin, M. L. M., Yunus, N. A. M., & Asnawi, N. H. (2016). Theories of knowledge sharing behavior in business strategy. *Procedia Economics and Finance, 37,* 545-553. https://doi.org/10.1016/S2212-5671(16)30163-0
*Resende Junior, P. C., & Fujihara, R. K. (2018). Factor analysis on innovation inductors in high performance organizations. *International Journal of Innovation, 6*(3), 275-286. https://doi.org/10.5585/iji.v6i3.253
*Rezaei, A., Allameh, S. M., & Ansari, R. (2018a). Effect of organisational culture and organisational learning on organisational innovation: An empirical investigation. *International Journal of Productivity and Quality Management, 23*(3), 307-327. https://doi.org/10.1504/IJPQM.2018.089803
*Rezaei, A., Allameh, S. M., & Ansari, R. (2018b). Impact of knowledge creation and organisational learning on organisational innovation: An empirical investigation. *International Journal of Business Innovation and Research, 16*(1), 117-133. https://doi.org/10.1504/IJBIR.2018.091087
Saleh, S. D., & Wang, C. K. (1993). The management of innovation: Strategy, structure, and organizational climate. *IEEE Transactions on Engineering Management, 40*(1), 14-21. https://doi.org/10.1109/17.206645
*Santamaria Ramos, J., & Madariaga Orozco, C. A. (2019). Determinantes de la innovación social en las fundaciones de cuarta generación de Barranquilla, Colombia. *Innovar, 29*(73), 113-132. https://doi.org/10.15446/innovar.v29n73.78026
*Shafique, I., Ahmad, B., & Kalyar, M. N. (2019). How ethical leadership influences creativity and organizational innovation: Examining the underlying mechanisms. *European Journal of Innovation Management, 23*(1), 114-133. https://doi.org/10.1108/EJIM-12-2018-0269
*Shahzad, F., Xiu, G., & Shahbaz, M. (2017). Organizational culture and innovation performance in Pakistan's software industry. *Technology in Society, 51,* 66-73. https://doi.org/10.1016/j.techsoc.2017.08.002
*Shier, M. L., & Handy, F. (2014). From advocacy to social innovation: A typology of social change efforts by nonprofits. *Voluntas, 26*(6), 2581-2603. https://doi.org/10.1007/s11266-014-9535-1
*Shier, M. L., Handy, F., & Jennings, C. (2019). Intraorganizational conditions supporting social innovations by human service nonprofits. *Nonprofit and Voluntary Sector Quarterly, 48*(1), 173-193. https://doi.org/10.1177/0899764018797477
*Shin, K., Kim, E., & Jeong, E. S. (2018). Structural relationship and influence between open innovation capacities and performances. *Sustainability (Switzerland), 10*(8), 1-19. https://doi.org/10.3390/su10082787
Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annual Review of Psychology, 70*(1), 747 -770. https://doi.org/10.1146/annurev-psych-010418- 102803
*Simao, L., & Franco, M. (2018). External knowledge sources as antecedents of organizational innovation in firm workplaces: A knowlege-based perspective. *Journal of Knowledge Management, 22*(2), 237-256. https://doi.org/10.1108/JKM-01-2017-0002
*Soltani, Z., Zareie, B., Rajabiun, L., & Agha Mohseni Fashami, A. (2019). The effect of knowledge management, e-learning systems and organizational learning on organizational intelligence. *Kybernetes, 49*(10), 2455-2474. https://doi.org/10.1108/K-12-2018-0672
*Sutanto, E. M. (2017). The influence of organizational learning capability and organizational creativity on organizational innovation of universities in East Java, Indonesia. *Asia Pacific Management Review, 22*(3), 128-135.
Toorajipour, R., Sohrabpour, V., Nazarpour, A., Oghazi, P., & Fischl, M. (2021). Artificial intelligence in supply chain management: A systematic literature review. *Journal of Business Research, 122*, 502-517. https://doi.org/10.1016/j.jbusres.2020.09.009
*Tortoriello, M., McEvily, B., & Krackhardt, D. (2015). Being a catalyst of innovation: The role of knowledge diversity and network closure. *Organization Science, 26*(2), 423-438. https://doi.org/10.1287/orsc.2014.0942
*Torugsa, N. A., & O'Donohue, W. (2019). Managing knowledge-related barriers to technological innovation through exploitative and explorative organisational strategies. *International Journal of Innovation Management, 23*(4), 1-20. https://doi.org/10.1142/S136391961950035X
*Unceta, A., Castro-Spila, J., & García Fronti, J. (2016). Social innovation indicators. *Innovation, 29*(2), 192-204. https://doi.org/10.1080/13511610.2015.1127137

*Unceta, A., Castro-Spila, J., & García Fronti, J. (2017). The three governances in social innovation. *Innovation, 30*(4), 406-420. https://doi.org/10.1080/13511610.2017.1279537

*Urban, B., & Gaffurini, E. (2017). Organisational learning capabilities as determinants of social innovation: An empirical study in South Africa. *SA Journal of Human Resource Management, 15*(0), 1-11. https://doi.org/10.4102/sajhrm.v15i0.857

*Vaculik, M., Lorenz, A., Roijakkers, N., & Vanhaverbeke, W. (2019). Pulling the plug? Investigating firm-level drivers of innovation project termination. *IEEE Transactions on Engineering Management, 66*(2), 180-192. https://doi.org/10.1109/TEM.2018.2798922

Van Wart, M., Roman, A., Wang, X., & Liu, C. (2017). Integrating ICT adoption issues into (e-)leadership theory. *Telematics and Informatics, 34*(5), 527-537. https://doi.org/10.1016/j.tele.2016.11.003

*Waleed, O. (2015). Innovative behavior and venture performance of SMEs: The moderating effect of environmental dynamism. *European Journal of Innovation Management, 18*(2), 195-217. https://doi.org/10.1108/EJIM-02-2013-0015

*Wang, D., & Lam, K. C. K. (2019). Relationship between ambidexterity learning and innovation performance: The moderating effect of redundant resources. *Journal of Asian Finance, Economics and Business, 6*(1), 205-215. https://doi.org/10.13106/jafeb.2019.vol6.no1.205

*Wang, T., Zhao, B., & Thornhill, S. (2015). Pay dispersion and organizational innovation: The mediation effects of employee participation and voluntary turnover. *Human Relations, 68*(7), 1155-1181. https://doi.org/10.1177/0018726715575359

*Wang, Y., Su, X., Wang, H., & Zou, R. (2019). Intellectual capital and technological dynamic capability: Evidence from Chinese enterprises. *Journal of Intellectual Capital, 20*(4), 453-471. https://doi.org/10.1108/JIC-06-2018-0096

*Wang, Y.-M., & Wang, Y.-C. (2016). Determinants of firms' knowledge management system implementation.pdf. *Computers in Human Behavior, 64*, 829-842. https://doi.org/10.1016/j.chb.2016.07.055

Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS quarterly, 29*(1), 35-57. https://doi.org/10.2307/25148667

Widén-Wulff, G., & Suomi, R. (2003, January). Building a knowledge sharing company-evidence from the Finnish insurance industry. In *Proceedings of the 36th Annual Hawaii International Conference on System Sciences - 2003.* IEEE. https://doi.org/ 10.1109/HICSS.2003.1173747

Witherspoon, C. L., Bergner, J., Cockrell, C., & Stone, D. N. (2013). Antecedents of organizational knowledge sharing: A meta-analysis and critique. *Journal of Knowledge Management, 17*(2), 250-277. https://doi.org/10.1108/13673271311315204

*Xia, H., Tan, Q., & Bai, J. (2018). Corruption and technological innovation in private small-medium scale companies: Does female top management play a role? *Sustainability (Switzerland), 10*(7), Article 2252. https://doi.org/10.3390/su10072252

*Xu, J., Shang, Y., Yu, W., & Liu, F. (2019). Intellectual capital, technological innovation and firm performance: Evidence from China's manufacturing sector. *Sustainability (Switzerland), 11*(19), 1-16. https://doi.org/10.3390/su11195328

*Yan, K., Cheng, T. C. E., Li, G., & Wei, Z. (2021). Overcoming the service paradox by leveraging organizational design and cultural Factors: A combined configuration and contingency approach. *IEEE Transactions on Engineering Management, 68*(2), 498-512. https://doi.org/10.1109/TEM.2019.2911105

*Yoo, W. J., Choo, H. H., & Lee, S. J. (2018). A study on the sustainable growth of SMEs: The mediating role of organizational metacognition. *Sustainability (Switzerland), 10*(8), Article 2829. https://doi.org/10.3390/su10082829

*Zhang, X., Griffith, J., Pershing, J., Sun, J., Malakoff, L., Marsland, W., Peters, K., & Field, E. (2017). Strengthening organizational capacity and practices for high-performing nonprofit organizations: Evidence from the national assessment of the social innovation fund-a public-private partnership. *Public Administration Quarterly, 41*(3)., 424-461.

Zheng, T. (2017). A literature review on knowledge sharing. *Open Journal of Social Sciences, 5*(03), 51-58. https://doi.org/10.4236/jss.2017.53006

*Zhou, F., & Gu, X. (2019). Fuzzy impact of quality management on organizational innovation performance. *Journal of Intelligent and Fuzzy Systems, 37*(3), 3093-3101. https://doi.org/10.3233/JIFS-179112

*Zhou, J., Wang, Q., Tsai, S. B., Xue, Y., & Dong, W. (2017). How to evaluate the job satisfaction of development personnel. *IEEE Transactions on Systems, Man, and Cybernetics: Systems, 47*(11), 2809-2816. https://doi.org/10.1109/TSMC.2016.2519860

*Zhou, Y., Fan, X., & Son, J. (2019). How and when matter: Exploring the interaction effects of high-performance work systems, employee participation, and human capital on organizational innovation. *Human Resource Management, 58*(3), 253-268. https://doi.org/10.1002/hrm.21950

*Zollet, R., & Back, A. (2015). Critical factors influencing diffusion of interactivity innovations on corporate websites. *IEEE Transactions on Professional Communication, 58*(1), 2-19. https://doi.org/10.1109/TPC.2015.2424611

*Zuñiga-Collazos, A. (2018). Analysis of factors determining Colombia's tourist enterprises organizational innovations. *Tourism and Hospitality Research, 18*(2), 254-259. https://doi.org/10.1177/1467358416642008