

Effect of Knowledge Creation Practices on Managerial and Marketing Innovation Through Creativity

Rawâa Hammami and Karima Bouzguenda

Faculty of Economics and Management Sfax, Tunisia

rawaa.hammami@gmail.com

ka.bouzguenda@gmail.com

Abstract: Knowledge creation (KC) is viewed as one of the important practices in knowledge management (KM) process. It is argued that the success of the firm is measured, to a great extent, by its level of innovation. In fact, an innovation-oriented perspective contributes to sustainability. Moreover, innovation is usually developed through new knowledge and creative ideas. That's why; it is relevant to examine the relationship between KC, creativity, and innovation. The first objective of the present paper is to study three direct relationships: The first relation is between KC and innovation (managerial, marketing). The second direct relation is between knowledge creation and creativity. The Third direct relation is between creativity and innovation. The second objective is to analyze the relationship between KC and innovation through the mediation of creativity. Finally, we will compare the results and identify the strongest and significant links useful for practice. The focus is on non-technological innovation because the majority of studies dealt with technological innovation. Added to that, managerial and marketing innovation is supposed to procure an advantage for emergent economies in a post-revolutionary and Covid context. The quantitative approach is adopted upon which 83 valid questionnaires are analyzed using the SEM with Pls3 to test the relationships between the variables. The results show that KC has a positive and significant effect on the two considered types of innovation. In addition, since KC dynamics allow organizations to develop and generate new ideas favorable to innovation, it has a positive effect on creativity. The test of mediation proves that creativity intervenes in the relation between KC, operationalized by the SECI model, and innovation. Based on these results, we may conclude that the relationship between KC and innovation becomes the strongest with the mediation of creativity. Certainly, these results have several implications both on the theoretical and empirical sides.

Ke words: Knowledge creation, Creativity, Marketing innovation, Managerial innovation, PLS

1. Introduction

In reference to knowledge-based view (KBV), knowledge is considered as a resource that is a source of competitive advantage (Costa et al, 2016; Davenport et al, 1998). Even though KM is often recapped in a non-exhaustive list of practices, the importance of the creation's phase, as a foremost and critical practice, has been largely emphasized in assuring the success of KM initiatives (Grimsdottir et al, 2018; Ermine, 2003). In fact, organizations focusing on innovation must be able to inspire and create new knowledge that can be translated into innovative output.

Furthermore and due to the changes that have marked the environment, among the most recent ones is the propagation of Covid19 that has dominated the whole World, organizations were confronted with an obligatory change in their managerial modes and their marketing approaches; we may evoke the appearance of the phenomenon of the delivery service and the online sale that did not frequently exist before. Companies must, therefore, manage themselves internally and develop new knowledge that aligns with the new needs and challenges. Despite the importance such new innovations' needs, the majority of research has been dealing with technological innovation mainly process and product innovation (Ferreira, 2018).

Referring to previous work, some researchers have identified the relationship between KM and innovation (Sankowska, 2013, Wang et al, 2012) by considering KM as a holistic variable (Ode, 2020). Moreover, the effect of creativity has been often overlooked (Sigala et al, 2015). Yet the latter constitutes an antecedent and a determinant of successful innovation.

The present study suggests overcoming this gap by examining the relationship between KC and managerial and marketing innovation while highlighting the mediating role of creativity. Such inquiry is realized, in a first part, on the theoretical side by mobilizing some hypothesis. In a second part, an empirical study is engaged to test the relevant links between the variables, discuss the results, and infer the implications useful for practice.

2. Theoretical Background

In this section, we present the concepts related to the study and establish their link to research question.

2.1 Knowledge Creation as an Important Step of KM Process

By recurring to KM practices, it is argued that the firm may benefit from a build-up in its competencies which may contribute to the development of its competitive advantage (Rahimli, 2012). In fact, literature review reveals that KM process is usually initiated by the KC phase (Miller, (1999); Bose, (2004); Lee et al, (2005); Torabi et al, (2017); Antunes et al, (2020). It follows that the success of the KM process is, a great extent, attributed to the effectiveness and dynamics of KC. Knowledge created "is sometimes more important than the existing knowledge" (Tajpour et al, 2022).

The present study is based on the KC theory founded by Nonaka and colleagues (1995) which is one of the best known in knowledge-based theories (Nguyen et al, 2016). This theory focuses on the conversion of the two dimensions of knowledge, namely tacit and explicit, yielding to four modes of KC:

- - Socialization from tacit to tacit: the conversion is achieved through shared experiences and know-how and realized through observation, imitation, and practice (Nguyen et al, 2016).
- - Externalization from tacit to explicit: this step is about formalizing tacit knowledge into supports in order to make it more understandable, accessible, and useful.
- - Combination from explicit to explicit: this conversion corresponds to the social interaction between the members of the organization on the shared explicit knowledge. This step refers to the activities of synthesizing, sorting, and collecting explicit knowledge (Schulze et al, 2008). These activities allow for a new combination in a way to create new knowledge (Nguyen et al, 2016).
- - Internalization: from explicit to tacit: the new knowledge resulting from the new combination is applied through its implementation. Learning by doing is the appropriate tool during this stage of KC (Nonaka et al, 2000).

As a result of the social interaction during the KC process and the transition from one mode of conversion to another, new interpretations and ideas are developed. In this regard, Chang et al (2014), confirm that the KC process is directly related to creativity.

2.2 Creativity as a Dynamic of new Ideas' Generation

Creativity is one of the factors that facilitate the path to innovation (Ferraira, 2018) and a vital necessity for organizations (Boteaga, et al, 2020). More specifically, creativity is viewed as the ability to create useful and new ideas (Amabile, 1997) that are appropriate to the context in which they are applied (Howard et al, 2008). These characteristics related to ideas constitute a pillar that guarantees a high level of creativity (Amabile, 1988; Sternberg, 2005). Moreover, it is, in essence, a cognitive activity that allows for the development of new ideas (Fadaee et al, 2014). It is aimed at the development, selection, and enhancement of creative ideas (Rietzschel et al., 2018). If these ideas are evaluated and valued, they are ready to be applied and translated into innovation.

2.3 Innovation Typologies as Opportunities for Organizational Development

According to Shumpeter (1934), innovation includes all innovations related to products, processes, markets or organizational modes. The OECD defines innovation as "the implementation of a new or significantly improved product (good or service) or process, a new marketing method or a new organizational method in business practices, workplace organization or external relations" (OECD, 2005, pp. 46-47). Based on this definition, the notion of innovation may take several forms: - Product/service, process, marketing, and managerial. Such forms are classified as technological innovations (the first two types) and non-technological innovations.

Since the majority of studies has focused on technological innovation (Lam, 2005; Damanpour et al, 2012; Apanasovich et al, 2016), we will pay attention to non-technological innovation as they constitute potential sources of opportunities for organizational development especially for the developing countries.

2.3.1 Managerial innovation and new forms of organizations

The Oslo's Manual defines organizational innovation as "the implementation of a new organizational method in business practices, workplace organization or external relations." (OECD, 2005, p.51). It is based on the creation of new modes of organization and management that can improve firm's performance (Besbes et al, 2013; p.163). It "is a new administrative system, new managerial practices, or new techniques that can create value for the organization that adopts them." (Damanpour et al, 2012, p. 424). Given the fact that it affects all functions of the organization (Le Roy et al, 2013), the development of NFOs would have not taken place

without the engagement in managerial innovation due to its incidence on performance as preconized by Hamel (2009).

2.3.2 Marketing innovation

It deals with any "introduction of new marketing methods that involve significant changes in product design, product placement, and product promotion or pricing (OECD, 2005, p.49). It reflects any changes in marketing tools and techniques which would lead to the increase in sales volumes while continuously satisfying customer needs or conquering new markets (Kalkan et al, 2014). According to Chen (2006), the success of the organization depends on innovation as it provides some opportunities to collect information from customers, understand their needs as well as to conquer new markets globally. Indeed, the proliferation of e-commerce and online business witnesses the value-added of new marketing methods.

The specification of the conceptual framework of the study leads to two main deductions: On the one hand, the terms "new " and "newness" seem to be the common denominator of KC, creativity, and innovation. On the other hand, the latter are grounded both in the RBV and the evolutionist view as paradigms of apprehending and explaining organizational phenomenon related to the capacity to face challenges and environmental changes.

3. Hypothesis Development and Conceptual Model

In this section, we will develop the conceptual model and the underlying hypotheses dealing with the nature of the links between KC, creativity, and innovation.

3.1 Effect of KC on Innovation

KC is the principal core of innovation (Nisula et al, 2022). It is considered as the output of a cooperative and collaborative effort instead of a new work from a unique entity (Krishnan et al, 2021). Collaborative dimension represent the capacity of an organization to create, integrate and transform knowledge and idea into innovation (Shen et al, 2021). It is argued that KM process and innovation start mainly from KC (Grimsdottir et al, 2018) which is considered as a core activity to innovation path (Nonaka et al, 1995; Wang et al, 2012 and Xue, 2017). In fact, created knowledge may be used to enhance management and marketing policies.

3.1.1 Effect of KC on managerial innovation

Given that the effective functioning of an organization depends first of all on its working strategy and its mode of management, it is then important to give more attention to these administrative procedures, to make adjustments in a permanent way, and to create new specific strategies that align with the internal and external needs.

On the theoretical side, authors demonstrate that KC is a cornerstone of management (Nonaka, et al, 1995, and Lam, 2005). On the empirical side, a study conducted in the Vietnamese context confirms that the SECI model influences innovation initiatives (Nguyen et al, 2016).

Based on the above, we propose the following hypothesis:

Hypothesis 1: KC practices (SECI) have a positive effect on Managerial innovation.

3.1.2 Effect of KC on marketing innovation

The focus is on the marketing factors that enable the organization to improve its market position. Thus, creating new knowledge allows the organization to develop new ways to promote the level of sales and increase its revenues. Also, the launching of new product needs knowledge related to the place of distribution and the way in which the product is commercialized. The creation of a packaging and distinguishable design requires so much knowledge to have a distinctive image compared to the competitors.

In other words, it is the process of SECI that guarantees the incorporation of such new knowledge (Popadiuk, 2006; Nguyen et al, 2016).

On the basis of the above, we hypothesize the following:

Hypothesis 2: KC practices have a positive effect on marketing innovation.

3.2 Effect of KC on Creativity

In an environment characterized by continuous change, creativity is the appropriate response for any organization aiming at succeeding (Egan, 2005). As knowledge mobilization (transfer and conversion) is the basis of KC practices, the development of new ideas is achieved through social interactions and the conversion of knowledge from one mode to another. Then, KC practices are closely related to creativity (Chang, 2014 Rhimi et al, 2011) and may serve as a facilitator for creativity (Bladé et al, 2018). Empirically, the study of Lee et al (2003) provides evidence of the positive and significant relationship between KC and creativity.

Based on this reasoning, we propose the following hypothesis:

Hypothesis 3: KC practices (SECI) have a positive effect on creativity

3.3 Effect of Creativity on Innovation

If creativity is simply the ability to create and develop new ideas that meet needs (Amabile, 1996), innovation refers to the application of effective implementation of these ideas (Péres-Luño et al, 2011; Rietzschel et al, 2018). As all novelty starts mainly from new knowledge, the SECI nurtures the innovation process through which knowledge emerges, develops, and is shared and translated into new market practices and/or management methods.

Based on the above, we make the following hypothesis:

Hypothesis 4: Creativity has a positive effect on managerial innovation.

Hypothesis 5: Creativity has a positive effect on marketing innovation.

3.3.1 Mediating role of creativity on the relation between KC and innovation

The starting point is that creativity is the basis of all types of innovation (Sarooghi et al, 2015) and it is founded on knowledge. The latter facilitates the generation of new ideas that are susceptible to be translated into innovation (Borghini, 2005). It follows that the relation between innovation and creativity is etymologically grounded; what is needed is the implementation of creative ideas, for them to be innovation. Moreover, empirically studies showed that creativity has a mediating effect on the relationship between market orientation and new product performance and between the encouragement of risk-taking and new product performance (Sethi et al, 2009). The research of Chang et al (2014) assesses the intermediary role of creativity between KC and the performance of new products. The present study takes another angle by treating creativity as a mediating variable between KC and innovation as proposed in the following hypotheses:

Hypothesis 6: Creativity has a mediating effect on the relationship between KC and Marketing innovation.

Hypothesis 7: Creativity has a mediating effect on the relationship between KC and Managerial innovation.

Based on the theoretical argumentation, the issue related to the extent to which the SECI model influences non-technological innovation through creativity becomes more relevant than ever before as illustrated in the figure 1. Such relevance needs to be validated empirically.

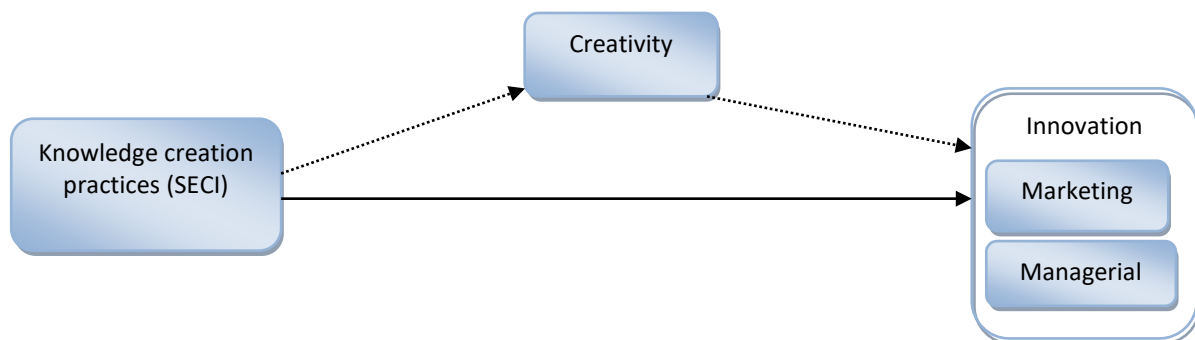


Figure 1: Conceptual Model of the Study

4. Methodology of Research and Results

In this section, we present the methodology of the empirical study and the results obtained.

4.1 Methodology of Research

A quantitative study through a survey is conducted. The sample concerns 83 to Tunisian companies operating in the agri-food sector and certified ISO 9001 which requires the implementation of KM practices. In this context, Gardeazabal et al (2023) argued that Knowledge is an important factor for agri-food systems. Table 1 presents the variables and the sources of scales used.

Table 1: Measurement of Variables

Variables	Nature	Reference
KC (SECI)	Independent	Lee et al (2003)
Creativity	Mediator	Lee et al (2003)
MkgInnov	Dependent	OCDE (2005)
ManagInnov	Dependent	OCDE (2005)

4.2 Descriptive Analysis

In this section we present a detailed description of our sample.

4.2.1 Distribution of the sample by geographical area

Our sample is composed of 83 companies geographically distributed as shown in Table 2 below.

Table 2: Distribution of the Sample by Geographical Area

Zone	%
Tunis	37%
Coastal	41%
South	22%

Representing a fertile agricultural zone, the Coastal zone was the primary source of data collection with 41% of the total sample.

4.2.2 Distribution of the sample by company size

Based on table3 below, we notice that the majority of the companies surveyed have a medium size.

Table 3: Distribution of the Sample by Company Size

Size	%
Medium	55%
Large	30%
Small	50%

4.2.3 Distribution according to the respondents' profile

The distribution of the respondents' profile is based on the criteria of gender and age (see Table 4).

Table 4: Distribution by Gender of Respondent

Gender	%
Male	55%
Female	45%

The majority of respondents are men 55%. Women represent 45% of the total population (see Table 5).

Table 5: Distribution of the Sample According to the age of the Respondent

Age	[25-35]	[36-45]	[46-55]	>55
percentage	15%	42%	35%	8%

Based on this classification, we note that the majority of respondents are young, as they are between 36 and 45 years old.

We note that more than half of the respondents are young. 57% of them are between 25 and 45 years old.

4.3 Exploratory Factor Analysis (EFA)

The results of EFA show that all variables have a determinant different at 0, and at 1 and a KMO value between 0.6 and 0.7 (Table 6). Hence, principal component analysis can be applied.

Table 6: Results of the Exploratory Factor Analysis

Variable	Determinant	KMO	Proper value	Explained variance
Socialisation	0,366	0,732	2,271	56,78%
Externalisation	0,378	0,655	2,117	52,93%
Combination	0,151	0,764	2,88	57,775%
Internalisation	0,433	0,665	1,969	65,61%
MkgInnov	0,177	0,884	2,602	65,043%
ManagInnov	0,195	0,746	2,686	67,16%
Creativity	0,02	0,771	3,850	77%

4.4 Results of Research

The reliability and validity of the constructs are verified before testing the hypotheses.

4.4.1 Validity and reliability results

Table 7 indicates that the constructs have high levels of reliability with values between 0.817 and 0.927 as recommended by Hair et al. (2014). All constructs have satisfactory average variance extracted indices that exceed the threshold recommended by Fornell et Larcker (1981) and Bagozzi et al. (1988).

Table 7: Results of Reliability and Validity Tests

Constructs	Reliability composite	AVE	Alpha de Cronbach
Socialisation	0,841	0,570	0,749
Externalisation	0,817	0,529	0,701
Combination	0,870	0,576	0,812
Internalisation	0,850	0,655	0,737
MkgInnov	0,881	0,650	0,819
ManagInnov	0,890	0,670	0,836
Creativity	0,927	0,762	0,895

4.4.2 Hypothesis testing

Our research model is composed of 5 direct relationships and 2 indirect relationships.

The alleged effects tested using SEM with PLS, yield to the following results as exhibited in table 8. The analysis confirms the positive and significant effects between all the variables supporting the hypotheses proposed. There is evidence on the effect of SECI on creativity and managerial and marketing innovation in the studied firms.

Table 8: Results of Direct Relations

H	Relation	Path coefficient	t-Student	P value	Decision
H.1	KC => ManagInnov	0,413	3,590	0,000	Accepted
H.2	KC => MkgInnov	0,463	3,369	0,001	Accepted
H.3	KC => Creativity	0,860	20,502	0,000	Accepted

H	Relation	Path coefficient	t-Student	P value	Decision
H.4	Creativity => MkgInnov	0,346	2,482	0,013	Accepted
H.5	Creativity => ManagInnov	0,474	4,118	0,000	Accepted

As for the mediating effect of creativity, table 9 shows that the latter intervenes positively in the relationship between KC and both types of innovation. The mediation was tested by Sobel test.

Table 9: Results of Mediation Relations

H	Relation	t-Student	p-value	Z	p-value	Decision
H.6	KC=> Creativity => MkgInnov	2,383	0,017	2,4710168	0,006	Accepted
H.7	KC => Creativity => ManagInnov	3,749	0,000	4,0406889	0,000	Accepted

5. Discussion of the Results and Conclusion

Three main paths of relationships addressed in the present study are grounded not only theoretically but also empirically. These paths witness the existence of some dynamics favorable to KC, creativity, and innovation in the studied context.

5.1 Discussion of the Results

The first path deals with the effect of KC on innovation and creativity which is statistically significant and positive. Such effect may be explained by the following reasons.

- Social interactions seem to be useful, to a great extent, to identify problems and stimulate the creativity and innovation process (socialization). As a matter of fact, in order to find solutions, new opinions emerge as a result of discussions (exteriorization) and changes in behavior are likely to happen (combination and interiorization) as asserted by Le Roy et al (2013).
- In reference to RBV, training policy strengthening the competencies and skills of participants facilitates the delegation of decision making. The emergence of new structures and methods would add value to all functions and shape internal and external relations (Rajapathirana et al, 2018).
- Recently, the proliferation of social networks and the digital transformation are having a strong influence on business models and organizational behavior.

The results corroborate those of Lee et al (2003), Pezzillo Iacono et al. (2012), Hira et al. (2019), and Barua (2018); a fact that show a certain steadiness in the effect of KC on innovation.

The second path confirms the link between creativity and innovation which is conditioned by the capacity to transform new ideas into practical new managerial modes and marketing techniques perceived as valuable by all stakeholders. Studied firms have been able to develop a certain level of congruence between creative ideas generated and changes in organizational functioning and marketing strategy. Creativity provides, thus, the novelty of ideas in reference to the market and not in reference to what exists within the organization. This result aligns with that of Sarooghi et al (2015) yet diverges from the study of Stupa et al (2017) conducted in the Indonesian context. We may advance the contingent nature of the effect of creativity on innovation.

The third path examined concerns the mediating effect of creativity on the relation between KC and innovation. The results that KC practices have more direct effect on MkgInnov and ManagInnov with β indices respectively ($\beta=0.463$; $\beta=0.413$) than with creativity mediation ($\beta=0.297$; $\beta=0.408$). This partial effect may be explained by the relative dynamic of KC, creativity, and innovation characterized by a certain level of timidity and ineffectiveness in exploiting available resources and knowledge created. It seems that studied firms fail to either stimulate the detection of useful new ideas or develop new organizational modes and marketing methods that are appropriate to the context. KC is deemed important but insufficient to innovation performance.

Anyway, the findings may be traced to the premises of the institutional theory which emphasizes the weight of some pressures on the adoption of new managerial and marketing techniques becoming “fashion fads” more than “innovative practices”. It seems that coercive and mimetic pressures have been exerted on the studied firms leading to a fictive innovation resulting from the imitation of successful practices of big companies.

Such observation is relevant since Tunisian firms have been engaged in quality certification following coercive and mimetic pressures from government and external partners. As a matter of fact, the number of firms certified ISO 9001 keeps falling down since the revolution in 2011 and along with the propagation of COVID-19. Consequently, the changes in managerial and marketing methods are “superficial” and did not undergo real changes in paradigms and practices. Or, practices related to “benchmarking” may constitute a source of false innovation (Demil & al, 1998) and what DiMaggio et al (2012) calls “mimetic isomorphism”. Besides, the relative innovation stems from the lack of creativity (Li et al, 2018) and the absence of favorable conditions to KC. For that, studied firms have a long way to go in order to conceive “new structures” approving the effective conversion modes of KC and targeting creative ideas.

5.2 Conclusion

Even though the question related to the performance of innovation is not new, one may assert that the majority of research has studied innovation from a global perspective by considering it as a holistic variable with the exception of the work of Nguyen et al (2016). Moreover, no research work has taken into consideration the mediating role of creativity in the relationship between KC and different types of innovation.

The idea is that creativity and the development of new ideas are generated from the activities carried out during the implementation of KC practices (SECI) (Lee et al, 2003; Riaz et al, 2019 and Barua, 2018).

The literature argues that creativity is a level that stimulates innovation (Parmentier et al, 2015) and that it is developed from knowledge (Lee et al, 2003). So it can be considered as a mediator between KC and innovation. This is our theoretical contribution.

At the managerial level, the results proved the role played by KC on non-technological innovation. Tunisian organizations need to give more attention to KC practices and take seriously the process of SECI by aiming the generation of ideas leading to value-added innovation. Some deficiencies are observed knowing that Tunisian firms have been losing their competitiveness in the international market and many contracts have been canceled. Despite the pressures of the institutional framework, managers must be creative in order to avoid different types of isomorphism.

This research can be enriched by conducting a qualitative study to detect best practices in KM and to analyze the meaning of innovation according to managers' perceptions. As KC practices are not well practiced, it seems important to study the facilitator of KC such as the use of social media.

To improve our research, it's able to study the role of human resource practices to enhance KC practices. Also, the analysis of the cultural dimension may be deepened as it constitutes an important framework that can provide some answers since the Tunisian culture is characterized by haziness (Zghal, 1994).

References

- Amabile, T.M. (1997) “Entrepreneurial creativity through motivational synergy”, *The journal of creative behavior*, 31(1), pp.18-26.
- Amabile, T.M.(1988) “A model of creativity and innovation in organizations”, *Research in organizational behavior*, 10(1), pp.123-167.
- Amabile, T.M., Collins, M., Conti, R. and Phillips, E. (1996) “Creativity in context. Update to the social psychology of creativity”, Boulder, Colorado.
- Antunes, H.D.J.G. and Pinheiro, P.G. (2020) “Linking knowledge management, organizational learning and memory”, *Journal of Innovation & Knowledge*, 5(2), pp.140-149.
- Apanasovich, N., Heras, H.A. and Parrilli, M.D. (2016) “The impact of business innovation modes on SME innovation performance in post-Soviet transition economies: The case of Belarus”, *Technovation*, 57, pp.30-40.
- Baldé, M., Ferreira, A.I. and Maynard, T. (2018) “SECI driven creativity: the role of team trust and intrinsic motivation”, *Journal of Knowledge Management*.
- Barua, B. (2018) “Impact of knowledge creation on organizational performance in the service organizations of Bangladesh”, *Int J Manag*, 7(4), pp.11-20.
- Besbes, A., Aliouat, B. and Gharbi, J.E. (2013) “L’impact de l’innovation managériale sur la performance: Rôle de l’orientation marché et de l’apprentissage organisationnel”, *Revue française de gestion*, (6), pp.161-174.
- Borghini, S. (2005) “Organizational creativity: breaking equilibrium and order to innovate”, *Journal of knowledge management*, 9(4), pp.19-33
- Botega, L.F.D.C. and da Silva, J.C. (2020) “An artificial intelligence approach to support knowledge management on the selection of creativity and innovation techniques”, *Journal of Knowledge Management*, 24(5), pp.1107-1130.
- Chang, J.J., Hung, K.P. and Lin, M.J.J.(2014) “Knowledge creation and new product performance: the role of creativity”, *R&D Management*, 44(2), pp.107-123.

- Chen, Y. (2006) "Marketing innovation", *Journal of economics & management strategy*, 15(1), pp.101-123.
- Costa, V. and Monteiro, S. (2016) "Key knowledge management processes for innovation: a systematic literature review", *VINE Journal of Information and Knowledge Management Systems*, 46(3), pp.386-410.
- Damanpour, F. and Aravind, D. (2012) "Managerial innovation: Conceptions, processes and antecedents", *Management and organization review*, 8(2), pp.423-454.
- Davenport, T.H. and Prusak, L. (1998) *Working knowledge: How organizations manage what they know*, Harvard Business Press.
- DiMaggio, P.J. and Powell, W.W. (1983) "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields", *American sociological review*, pp.147-160.
- Egan, T.M. (2005) "Creativity in the context of team diversity: Team leader perspectives", *Advances in developing human resources*, 7(2), pp.207-225.
- Ermine, J.L. (2003) "La gestion des connaissances" (p. 166). Hermès sciences publications.
- Fadaee, A. and Abd Alzahrh, H.O. (2014) "Explaining the relationship between creativity, innovation and entrepreneurship", *International Journal of Economy, Management and Social Sciences*, 3(1), pp.1-4.
- Fagerberg, J., Mowery, D.C. and Nelson, R.R. eds. (2005) *The Oxford handbook of innovation*, Oxford university press.
- Ferreira, J., Coelho, A. and Moutinho, L. (2020) "Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation", *Technovation*, 92, p.102061.
- Fornell, C. and Larcker, D.F. (1981) "Evaluating structural equation models with unobservable variables and measurement error", *Journal of marketing research*, 18(1), pp.39-50.
- Gardeazabal, A., Lunt, T., Jahn, M.M., Verhulst, N., Hellin, J. and Govaerts, B. (2023) "Knowledge management for innovation in agri-food systems: a conceptual framework.", *Knowledge management research & practice*, 21(2), pp.303-315.
- Giniuniene, J. and Jurksiene, L. (2015) "Dynamic capabilities, innovation and organizational learning: Interrelations and impact on firm performance", *Procedia-Social and Behavioral Sciences*, 213, pp.985-991.
- Grimsdottir, E. and Edvardsson, I.R., (2018) "Knowledge management, knowledge creation, and open innovation in Icelandic SMEs", *Sage Open*, 8(4), p.2158244018807320.
- Hair Jr, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2021) *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage publications.
- Howard, T.J., Culley, S.J. and Dekoninck, E. (2008) "Describing the creative design process by the integration of engineering design and cognitive psychology literature", *Design studies*, 29(2), pp.160-180.
- Kalkan, A., Bozkurt, Ö.Ç. and Arman, M. (2014) "The impacts of intellectual capital, innovation and organizational strategy on firm performance", *Procedia-social and behavioral sciences*, 150, pp.700-707.
- Krishnan, R., Yen, P., Agarwal, R., Arshinder, K. and Bajada, C., (2021) "Collaborative innovation and sustainability in the food supply chain-evidence from farmer producer organisations". *Resources, Conservation and Recycling*, 168, p.105253.
- Lam, A. (2006) *Organizational innovation* In Fagerberg, Jan, and David C. Mowery (eds), *The Oxford Handbook of Innovation*
- Lee, H. and Choi, B. (2003) "Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination", *Journal of management information systems*, 20(1), pp.179-228.
- Lee, K.C., Lee, S. and Kang, I.W. (2005) "KMPI: measuring knowledge management performance" *Information & management*, 42(3), pp.469-482.
- Li, M., Liu, H. and Zhou, J. (2018) "G-SECI model-based knowledge creation for CoPS innovation: the role of grey knowledge", *Journal of Knowledge Management*.
- Miller, W., 1999. *Building the ultimate resource*. *Management review*, 88(1), p.42.
- Nguyen, T.V., Phan, A.T. and Nguyen, T.T.M. (2016) "Knowledge creation, innovation and financial performance of firms: evidence from Vietnam", *International Journal of Business and Management*, 11(6), p.95.
- Nonaka, I. and Takeuchi, H. (1995) *The Knowledge-Creating Company*. New York: Oxford University Press.
- Nonaka, I., Toyama, R. and Konno, N. (2000) "SECI, Ba and leadership: a unified model of dynamic knowledge creation", *Long range planning*, 33(1), pp.5-34.
- Nisula, A.M., Blomqvist, K., Bergman, J.P. and Yrjölä, S. (2022) "Organizing for knowledge creation in a strategic interorganizational innovation project", *International Journal of Project Management*, 40(4), pp.398-410.
- Ode, E. and Ayavoo, R. (2020) "The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation", *Journal of Innovation & Knowledge*, 5(3), pp.210-218.
- OECD, (2005) *Oslo Manual: Guidelines for collecting and interpreting innovation data*.
- Parmentier, G. (2015) "How to innovate with a brand community", *Journal of Engineering and Technology Management*, 37, pp.78-89.
- Pérez-Luño, A., Wiklund, J. and Cabrera, R.V. (2011) "The dual nature of innovative activity: How entrepreneurial orientation influences innovation generation and adoption", *Journal of business Venturing*, 26(5), pp.555-571.
- Pezzillo Iacono, M., Martinez, M., Mangia, G. and Galdiero, C. (2012) "Knowledge creation and inter-organizational relationships: the development of innovation in the railway industry", *Journal of Knowledge Management*, 16(4), pp.604-616.

- Popadiuk, S. and Choo, C.W. (2006) "Innovation and knowledge creation: How are these concepts related?", *International journal of information management*, 26(4), pp.302-312.
- Rahimi, H. Et al. (2011) Relationship between knowledge management process and creativity among faculty members in the university. *Interdisciplinary Journal of Information, Knowledge, and Management*, 6, p.17.
- Rajapathirana, R.J. and Hui, Y. (2018) "Relationship between innovation capability, innovation type, and firm performance", *Journal of Innovation & Knowledge*, 3(1), pp.44-55.
- Riaz, H. and Hassan, A. (2019) "Mediating role of organizational creativity between employees' intention in knowledge management process and organizational performance: An empirical study on pharmaceutical employees", *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(3), pp.635-655.
- Riaz, H. and Hassan, A. (2019) "Mediating role of organizational creativity between employees' intention in knowledge management process and organizational performance: An empirical study on pharmaceutical employees", *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(3), pp.635-655.
- Rietzschel, E.F. and Ritter, S.M. (2018) "Moving from creativity to innovation", In *Individual creativity in the workplace* (pp. 3-34). Academic Press.
- Roy, F.L., Robert, M. and Giuliani, P. (2013) "L'innovation managériale. Généalogie, défis et perspective", *Revue française de gestion*, (6), pp.77-90.
- Sankowska, A. (2013) Relationships between organizational trust, knowledge transfer, knowledge creation, and firm's innovativeness. *The Learning Organization*.
- Sarooghi, H., Libaers, D. and Burkemper, A. (2015) "Examining the relationship between creativity and innovation: A meta-analysis of organizational, cultural, and environmental factors", *Journal of business venturing*, 30(5), pp.714-731.
- Schulze, A. and Hoegl, M. (2008), "Organizational knowledge creation and the generation of new product ideas: A behavioral approach", *Research policy*, 37(10), pp.1742-1750.
- Shen, B., Xu, X., Chan, H.L. and Choi, T.M. (2021), "Collaborative innovation in supply chain systems: Value creation and leadership structure.", *International Journal of Production Economics*, 235, p.108068.
- Sethi, R. and Sethi, A. (2009) "Can quality-oriented firms develop innovative new products?", *Journal of Product Innovation Management*, 26(2), pp.206-221.
- Sternberg, R.J. (2005) "Creativity or creativities?", *International Journal of Human-Computer Studies*, 63(4-5), pp.370-382.
- Sutapa, S., Mulyana, M. and Wasitowati, W. (2017) "The role of market orientation, creativity and innovation in creating competitive advantages and creative industry performance", *Jurnal Dinamika Manajemen*, 8(2), pp.152-166.
- Tajpour, M., Hosseini, E., Mohammadi, M. and Bahman-Zangi, B. (2022) "The effect of knowledge management on the sustainability of technology-driven businesses in emerging markets: The mediating role of social media.", *Sustainability*, 14(14), p.8602.
- Torabi, F. and El-Den, J. (2017) "The impact of knowledge management on organizational productivity: a case study on Koosar Bank of Iran", *Procedia Computer Science*, 124, pp.300-310.
- Wang, Z. and Wang, N. (2012) "Knowledge sharing, innovation and firm performance", *Expert systems with applications*, 39(10), pp.8899-8908.
- Xue, C.T.S. (2017) "A literature review on knowledge management in organizations", *Research in Business and Management*, 4(1), pp.30-41.
- Zghal, R. (1994). *La culture de la dignité et le flou organisationnel*, CPU, Tunis.