

An Exploratory Approach of Managerial Innovation: From Distinctive Characteristics to Practice

Lazaar Ikram ¹, Amrous Naila ²

¹ PHD Student, Department Information, Documentation, Knowledge & Society, Institute of Information Sciences, Rabat, Morocco

² Professor, Department Information, Documentation, Knowledge & Society, Institute of Information Sciences, Rabat, Morocco

Email: ¹ ikram.lazaar@esi.ac.ma, ² namrous@esi.ac.ma

Orchid Id: ¹ 0009-0002-5923-8091, ² 0000-0003-3718-7457

Corresponding Author*: Lazaar Ikram

ARTICLE INFO	ABSTRACT
Received: 30 Dec 2024 Revised: 05 Feb 2025 Accepted: 25 Feb 2025	<p>Innovation is the engine of the development of organizations, it becomes a necessity in a world characterized by volatility, uncertainty, complexity, and ambiguity (i.e VUCA World). Innovation covers products, services, and managerial practices by bringing novelty into the traditional management model making organization more resilient and agile. There are many studies related to managerial innovations however there is no devoted research to their intrinsic features, making thus their comprehension and adoption difficult. Also, to our knowledge there is no dedicated research investigating how the learning organization embodies a form of managerial innovation. Through a qualitative methodology centered on the content analysis of existing literature, our research aims to fill this gap by studying the main characteristics of managerial innovation, pointing out concrete managerial innovation practices, and examining the learning organization as an exemplary case of study. Our findings reveal the intangible, dynamic, and complex characteristics of managerial innovation, the impact of internal and external factors on the innovativeness of organizations and the significant overlap between the attributes of innovation and the learning organization ones. This research has both theoretical and practical implications, it provides an integrative theoretical framework of innovation and learning organization and serves as a foundation and practical tool for managers to adopt new practices by considering learning organization within the scope of managerial innovation. The study proposes a framework based on theoretical lens related to the learning organization and the diffusion of innovation, future research could develop a comprehensive empirical validation of the framework across diverse contexts.</p> <p>Keywords: Diffusion of innovation, innovation characteristics, managerial innovation, learning organization.</p>

INTRODUCTION

Innovation is seen as the main driver of progress and prosperity [1]. It is the “cause of the economic evolution” according to Schumpeter’s theory [2]. Organizations are increasingly called to innovate as a response to the constant changes in the environment [3],[4] and as a way of survival and efficiency [5]. Organizations have to innovate their products, services, but also their managerial practices [6] which refers to the expression “managerial innovation” used for the first time by [7] to distinguish it from technological innovation [8],[9]. Managerial innovation has seen a renewed interest in going beyond the organizational and administrative innovation [8]. However, research on managerial innovation remains inferior to that on technological one. Also, studies related to managerial innovation remain rare [8], [10], [11], [12] generating a difficulty regarding their identification, analysis of their added value and adoption. It is in this perspective that our research aims to fill this gap by making a focused analysis on the distinctive characteristics and determinants of managerial innovation and by positioning the learning organization as a practical case study. Through a review of literature, the research answers the four following questions:

1. What are the main intrinsic characteristics of managerial innovation?
2. What are the determinants and factors influencing the adoption of managerial innovation?
3. What are the main managerial innovations adopted so far?
4. To what extent learning organization could be positioned as a managerial innovation?

This paper is structured as follows; the first section provides the theoretical basis related to our study. It is followed by the presentation of the methodology adopted, the third section discusses the results. Finally, we conclude our paper and present the potential future research.

THEORETICAL BACKGROUND

The expression Managerial innovation is used under different names, including organizational or administrative innovation which embed the confusion related to its definition [13] it is considered as the result of a conceptual evolution of organizational and administrative innovation [3], [8], [14], [15].

The literature identifies two levels of analysis of the novelty [11]. The first one is the degree of novelty related to the state of art [7], [16]. The second one concerns the novelty in relation to the organization [11], [17], [18], [19]. Also, innovation could be acquired through the process of innovation diffusion [20], [21]. Still the boundary between the two perspectives is blurred and both of them are valid and converge [3]. In the same vein, the [20] lists three forms of novelty: "novelty for the company, novelty for the market, and novelty for the whole world". To understand the concept of managerial innovation, we address their objects in (Table I) which provides a compilation extracted from the literature.

Table I: Objects of managerial innovation

Author	Object of managerial innovation
[7]	Program, product, technique.
[20]	Method of organization, practices, workplace organization or external relations.
[22]	Practice, process, structures, standards.
[23]	Principles, process, practices, organizational structures.
[16]	Managerial practices, process, structure, technique.
[8]	Knowledge management approach, process, strategy, structure, administrative procedures, system.
[15]	organizational structures, administrative systems, Managerial practices.
[24]	Managerial practices, strategies, procedures, policies organizational structures.
[25]	Concepts, practices, structure, process, methods of organization
[3]	Management systems, knowledge in management, la organizational structure, internal process, capability in management, principles, managerial practices.
[26]	The mode of functioning.

Through these definitions, a distinction is made between managerial innovation and other types of innovation through the identification of the management objects concerned by the innovation. We note that the objects that come up the most in the literature are managerial practices, processes, methods, principles, organizational forms. For [3], managerial innovation refers to changes in traditional management principles, processes, and practices, which significantly alter the way management work is carried out.

The specificity of managerial innovations lies in the fact that even if organizations adopt the managerial innovations of others, its adoption remains adapted to the specific context of the organization [27].

As far as the process of managerial innovation is concerned, [16] propose a four-phase process: the first step *motivation* refers to the triggers of the process which can be changes in the environment, opportunities or the existence of a problem. The second stage *invention* which leads to changes in management practices or "hypothetical new practice", some of which are subject to internal selection. The third step is *implementation* to make the innovation operational and finally *theorization and labeling* which refers to the acceptance of new practices by making the link between the problem and the implemented solution. Labeling is about giving a meaningful name to the new practice. For [1] the process of managerial innovation includes generation, diffusion and adoption. *Generation* deals with how ideas are integrated into the organization. The *diffusion* stage focuses on the inter-organizational level and the *adoption* stage concerns the implementation which can be with or without adaptation.

METHODS

A. Data Research and Selection

A literature review was conducted, across major bibliographic database namely Scopus and Web Of Science as well as full text repositories such as Hal archives & Researchgate. The initial search yielded a wide range of publications to which was applied many filters to refine the results by date, type of material, key words, document type. A final selection of 50 articles was made covering articles written in English and French, published from 1981 to 2024 and having as keywords managerial innovation, organizational innovation, innovativeness, diffusion of innovation, learning organization, managerial practices, dynamic capacities...Etc.

B. Data Analysis

The documentary corpus constituted of the most relevant articles to our research, was then examined using the content analysis. Relevant data was extracted and then consolidated to the following groups: (1) concepts related to managerial innovation, (2) characteristics of innovation, (3) factors and determinants of managerial innovation, (4) practices of managerial innovation, (5) attributes of innovation diffusion and (6) dimensions of learning organization. This clustering of data enabled a structured and centered synthesis of the literature highlighting key insights about managerial innovations features and characteristics of learning organization.

C. Data Visualization

The data clustered were then visualized in the form of tables. This structured presentation makes the results condensed and understandable and make a direct link with the research objectives.

RESULTS

A. Key Characteristics of Managerial Innovations

Managerial innovations are both valuable and difficult to recognize due to their character defined as intangible, abstract [11], [8] and ambiguous [28], [15], [16] making their identification, assessment, and adoption complex [12], [15]. They are unique and difficult to duplicate since they result from specific organizational contexts, a uniqueness that gives organizations a distinctive advantage. They involve deep and lasting changes [9]. As a result they break away from traditional practices [24] in favor of dynamic and proactive ones [29]. These distinctive characteristics of managerial innovation are summarized in (table II).

Managerial innovations are also multidimensional and multilevel [1], [28] which extend to the different levels of the organization, promoting a transformation and a dynamic of improvement to ensure adaptation to the environment.

Managerial innovations are cumulative [25] and are built on the basis of old innovations and knowledge, an accumulation in favor of their anchoring and sustainability while being dynamic to meet emerging needs and seize .

Table II: Characteristics of managerial innovation

Authors	Characteristics of managerial innovation
[11]	Abstract, Intangible

Authors	Characteristics of managerial innovation
[15]	Complex, ambiguous, difficult to measure
[16]	Tacit, difficult to protect, lack of expertise and competences related to managerial innovation, uncertain, ambiguous, lack of comprehension of their impacts
[9]	Involves a lasting disruption, relies on a complex combination of resources and expertise that is difficult for competitors to identify and duplicate
[1]	Dynamic, Multi-level
[8]	Intangible, their impacts are less observable than those of technological or product innovations
[29]	Dynamic capacity, agile
[25]	Cumulative
[30]	Need approbation by external sources due to the lack of competencies
[10]	Multidimensional construction
[9]	Help managing uncertainty, impact the process of decision, non-patentable, difficult to identify, contain subjectivity in their definition
[16]	Includes differences in shape and quality
[12]	Complex, intangible, difficult to measure
[24]	Disrupting with the usual rules, involve new ways of thinking and new practices.

Still within the innovation characteristics, [19] through his theory of innovation identifies intrinsic characteristics of innovation, namely: 1. *the relative advantage* of innovation perceived by the potential adopters. 2. *Compatibility* with the values, experiences and needs. 3. *Complexity* of comprehension and use of innovations. 4. *Testability* and 5. *visibility* of innovation. These attributes will be elaborated in the section related to learning organization as a managerial innovation.

B. Determinants of Managerial Innovations

For [19], the ability of an organization to innovate or « innovativeness » depends on the following dimensions: *centralization* or *concentration* of decision making. The *complexity* which involves a high level of knowledge and expertise. *Formalization* or the degree of compliance to rules. *Interconnectedness* to interpersonal network and the *organizational slack* or the surplus of available resources. Obviously, interconnectedness, organizational slack and complexity have a positive incidence on the innovativeness of an organization. Regarding the innovativeness, [31] associates it with the organizational culture which promotes learning and participatory decision-making. For the author innovativeness combined with adequate resources do foster the capacity of innovation. [32] highlight the organization's reference group, who has access to new ideas and practices. For the authors the organizational context, internal and external sources of knowledge and manager's behaviors embed the capacity to innovate.

Reference [10] highlights the impact of the organization's openness on the adoption of organizational innovation, more specifically the diversity of external knowledge sources which, according to the same authors, promote the acquisition of additional knowledge. In addition, the research results of [32] introduce the idea that, in addition to internal structural factors, managerial innovation results from the interaction of internal and external knowledge. The authors show that knowledge from the market (customers, suppliers, competitors, consultants) as well as from other sources such as professional associations promote the adoption of organizational innovation. In this sense, external agents (consultants, academics, etc.) provide legitimacy and expertise, give credibility to inventions, identify opportunities and threats, and generate new ideas [30].

Thus, to carry out their innovation processes, innovative organizations often rely on external sources of knowledge. [33] point out three forms of external involvement in the innovation process, namely: *the direct input of external*

change agents; the prior external experience of internal change agents; and the use of external knowledge sources by internal change agents.

Reference [25] confirm the dual role of internal and external knowledge in the generation of organizational innovation and highlight the importance of research and development activities and staff training. For the authors, the acquisition of external knowledge also involves cooperative actions, inter-organizational collaborations, technology acquisitions and R&D subcontracting agreements and networking. Openness to the external environment establishes relationships with external actors to acquire and explore new knowledge or ideas [10].

C. Managerial Innovation in Practice

The reference [9] points out that all the functions of an organization are derived from managerial innovation. In (table III), we consolidate some examples of managerial innovation practices identified in the literature.

Table III: Concrete examples of managerial innovation practices

Authors	Examples of managerial innovation cited in the literature
[30]	"Calculation of costs by activity, market segmentation, Return on investment, company well-being, Process Reengineering, matrix organization, Benchmarking, Industry research, brand management, Six sigma"
[16]	"Scientific Management, Total Quality Management [TQM], Learning Organization, Divisional Form [M-], Toyota Production System, Quality of Life at Work" etc
[13]	"Cross-functional teams, Reduction of hierarchical levels, Cooperation/networks/alliances, Outsourcing, Continuous Improvement Processes, Quality Certifications/ [ISO]" etc.
[34]	"Participative management, Benevolent management, Autonomous teams, learning organization, Design thinking, Holacracy, Opal, Liberated organization" etc.
[35]	"Total Quality Management, Learning Organization, Customer Orientation, Lean Management" etc.

The examples cited in (table III) reflect the diversity of managerial innovation as outlined by their characteristics.

D. The Impacts of Managerial Innovation

The literature on identifying and measuring managerial innovations is incomplete, given the intangible nature of managerial innovations [13], thus their impacts are not perceptible [10]. But they would be the most likely to provoke a lasting break [36].

For [13], [37], [38], [39] managerial innovation has impacts on the performance and also on efficacy, productivity and competitiveness [32]. Reference [25] point out that managerial innovation is not only an innovation performance, but also an innovation capability, representing all changes improving an organization's core processes. For [40] managerial innovation develops the learning capacity considered as a dynamic capacity. Also, it is considered as a source of competitive advantage and organizational efficiency and brings technological innovations to fruition. Reference [15] stresses that managerial innovation promotes information sharing, coordination, collaboration, learning and innovation. For [16] managerial innovation has 3 types of consequences: (1) impacts on performance indicators (2) impact on the performance and legitimacy of innovation adopters and (3) impacts on productivity and quality of life for society [41]. For [42] managerial innovation enhances the corporate reputation.

E. Learning Organization as a Practical Case Study

Learning organization is defined by [43] as 'continuous improvement' to cope with change, [44] emphasizes that is not limited to training since it is about "organizational self-development". Learning organizations continuously leads the process of acquisition, processing, and diffusion of knowledge [36], and involves transforming data into knowledge and having a learning culture [45]. LO is a result of a holistic learning at all levels of the organization [37] which enhances its behavior reflecting the impact of knowledge acquired [46]. The reference [47] considers learning

organization as “a continuously learning how to learn together” and defines five disciplines of the learning organization: (1) *team learning* by developing the capacity of learning of members of groups, (2) *shared vision* involves sharing a common identity that fosters commitment of employees, (3) *mental models* as a discipline that emphasizes the deep analysis of assumptions and rules (4) *personal mastery* involves a self-evaluation and the willingness to achieve better results, and (5) *system thinking* which is considered as the foundation stone which integrates the other disciplines and considers the interrelationships of the different components of an organization.

To qualify the learning organization as an innovation, we relied on Rogers' theory diffusion of innovations, given that this approach was developed at the literature level and help designation of innovation [48]. The reference [21] defines diffusion as the process of communicating innovation among the social system through channel over time. The theory of innovation diffusion defines five attributes or characteristics of innovation as cited above. The (table IV) aligns these attributes with the dimensions and characteristics of a learning organization and reveals potential synergies between the two concepts.

Table IV: Learning organization as a managerial innovation.

Characteristics of innovation [Rogers, 1962]	Dimensions and characteristics of Learning organization
Relative advantage: is the degree of perception of an innovation as better than its antecedent. [e.g., Economic, social...]	<ul style="list-style-type: none"> • “attain competitive advantage, enhance reputation, increased profitability, efficiency and transparency” [49] • “efficient communication, participation in decision making and a non-hierarchical organizational structure” [50]
Compatibility: refers to the degree of alignment of innovation with the existing needs and values.	<ul style="list-style-type: none"> • “<i>Embedded system</i>”: using learning in an integrated way in the ongoing system. [51] • “<i>Shared vision</i>”: building a common understanding of values, culture and goals which ensure an alignment with the existing identity [47]. • “<i>System thinking</i>”: as a holistic approach which integrates the other interrelated components of the organization. [47]
Complexity: as the degree of perceived difficulty of an innovation [vs. clarity of meaning and ease of use]	<ul style="list-style-type: none"> • “<i>System thinking</i> : organization as a complex system of interrelated parts [47] • The learning organization is qualified as complex interrelationship of systems [52] <p>The degree of complexity is reduced through the other characteristics of learning organization such as: “<i>continuous learning</i>”, and “<i>empowerment</i>” [51]</p>
Trialability: is the possibility of experimenting innovation before full scale use.	<ul style="list-style-type: none"> • Considering problems as opportunities for experimentation[53] • Tolerating errors [54] • “<i>Trial-and-error process</i>”[55] • “<i>R&D</i>” activities that link learning outputs with knowledge performance [51]. • “<i>Single-Loop and Double-Loop Learning</i>”: Organizational learning is a process of detecting and correcting errors [56]
Observability: is the degree of visibility of the results of innovation.	<ul style="list-style-type: none"> • Performance and efficacy [54] • Financial performance and knowledge performance [51] • Satisfaction and development and high-performance expectations [57]

The theoretical framework presented in (table IV) proposes a structured parallelism between Rogers' innovation attributes and the dimensions of a learning organization and involves implications considering a learning organization as a managerial innovation.

CONCLUSION

This study stresses the intrinsic characteristics of managerial innovation and its determinants by highlighting how managerial innovation brings changes to practices and break away from traditional mode of management despite its abstract and complex nature. Also, new managerial practices that emerge from internal and external factors, promote continuous learning and improvement for resilient and performant organization. The research examines the learning organization as a case study thus making the conceptual delimitation of managerial innovation clearer. Our study has both theoretical and practical implications by proposing a conceptual framework linking the learning organization to managerial innovation and providing insights for managers willing to implement innovative managerial practices.

This research opens several research perspectives by giving insights on the implications of drawing parallels between innovation and the learning organization. Future research could verify these implications on real case studies and examines assessment tools since our research is limited to developing a theoretical framework.

REFERENCES

- [1]. Volberda HW, Van Den Bosch FAJ, Mihalache OR. Advancing Management Innovation: Synthesizing Processes, Levels of Analysis, and Change Agents. *Organization Studies*. 2014 Sep;35[9]:1245–64.
- [2]. Schumpeter J. *Théorie de l'évolution économique*. 1926;
- [3]. Barroso Simao Iurdes, Madeira MJ, Zaigham M, Carvalho LC. Management Innovation and Business Performance in Services: Economic and Social Potential [Internet]. IGI Global; 2019 [cited 2024 Aug 27]. [Advances in Electronic Government, Digital Divide, and Regional Development]. Available from: <http://services.igi-global.com/resolvedoi/resolve.aspx?doi=10.4018/978-1-5225-7937-3>
- [4]. Subramanian A, Nilakanta S. Organizational innovativeness: Exploring the relationship between organizational determinants of innovation, types of innovations, and measures of organizational performance. *Omega*. 1996 Dec;24[6]:631–47.
- [5]. Damanpour F, Schneider M. Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers ¹. *British J of Management*. 2006 Sep;17[3]:215–36.
- [6]. Lazaar I, Amrous N. Strategic Intelligence and Innovation in a Public Enterprise: Analysis Based on the Holistic Approach. 2023;
- [7]. Kimberly JR. *Managerial Innovation*. Oxford University Press. 1981. [Handbook of organizational design; vol. 1].
- [8]. Damanpour F, Aravind D. Managerial Innovation: Conceptions, Processes and Antecedents. *Manag Organ Rev*. 2012 Jul;8[2]:423–54.
- [9]. Le Roy F, Robert M, Guiliani P. L'innovation managériale. Généalogie, défis et perspectives. *Revue française de gestion*. 2013 Sep 28;39[235]:77–90.
- [10]. Duboulouz S, Bocquet R. Innovation organisationnelle. S'ouvrir pour innover plus ? *Revue française de gestion*. 2013 Sep 28;39[235]:129–47.
- [11]. Vaccaro IG, Jansen JJP, Van Den Bosch FAJ, Volberda HW. Management Innovation and Leadership: The Moderating Role of Organizational Size. *J Management Studies*. 2012 Jan;49[1]:28–51.
- [12]. Walker RM, Chen J, Aravind D. Management innovation and firm performance: An integration of research findings. *European Management Journal*. 2015 Oct;33[5]:407–22.
- [13]. Armbruster H, Bikfalvi A, Kinkel S, Lay G. Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys. *Technovation*. 2008 Oct;28[10]:644–57.
- [14]. Adam-Ledunois S, Damart S. Innovations managériales, attrapons-les toutes !: Design d'une méthodologie d'analyse critique des objets de management. Barlatier PJ, Chauvet V, Morales J, editors. *Rev Fr Gest*. 2017 Apr;43[264]:117–42.
- [15]. Damanpour F. Footnotes to Research on Management Innovation. *Organization Studies*. 2014 Sep;35[9]:1265–85.

- [16]. Birkinshaw J, Hamel G, Mol MJ. MANAGEMENT INNOVATION. *Academy of Management Review*. 2008;
- [17]. Damanpour F, Walker RM, Avellaneda CN. Combinative Effects of Innovation Types and Organizational Performance: A Longitudinal Study of Service Organizations. *J Management Studies*. 2009 Jun;46[4]:650–75.
- [18]. Damanpour F, Schneider M. Characteristics of Innovation and Innovation Adoption in Public Organizations: Assessing the Role of Managers. *Journal of Public Administration Research and Theory*. 2009 Jul 1;19[3]:495–522.
- [19]. Rogers EM. Diffusion of preventive innovations. *Addictive Behaviors*. 2002 Nov;27[6]:989–93.
- [20]. OECD. *La Mesure des Activités Scientifiques Et Technologiques: Manuel D'Oslo: Principes Directeurs Pour Le Recueil Et L'Interprétation des Données Sur L'Innovation [3E Édition]*. Washington, Palo Alto: Organization for Economic Cooperation & Development, Ebrary, Incorporated [distributor]; 2006.
- [21]. Rogers EM. Diffusion of innovations. 3. ed. New York, NY: Free Press [u.a.]; 1983. 453 p.
- [22]. Birkinshaw J, Mol M. How management innovation happens. 2006;
- [23]. Hamel G. The Why, What, and How of Management Innovation. *harvard business review*. 2006;
- [24]. Dubouloz S. Innovation organisationnelle et pratiques de mobilisation des RH. Une combinaison gagnante. *Revue française de gestion*. 2014 Feb 28;40[238]:59–85.
- [25]. Arranz N, Arroyabe MF, Li J, De Arroyabe JCF. An integrated model of organisational innovation and firm performance: Generation, persistence and complementarity. *Journal of Business Research*. 2019 Dec;105:270–82.
- [26]. Dumas Tsambou A, Ballo Z, Bouthaina F, Chkoundali R. Innovation managériale comme un levier de la compétitivité des entreprises dans les pays d'Afrique subsaharienne francophone: Marché et organisations. 2024 May 15;N° 50[2]:47–87.
- [27]. Ansari SM, Fiss PC, Zajac EJ. MADE TO FIT: HOW PRACTICES VARY AS THEY DIFFUSE. *Academy of Management Review*. 2010 Jan 1;35[1]:67–92.
- [28]. Lam A. Organizational Innovation. In: *Mapping Sustainability [Internet]*. Dordrecht: Springer Netherlands; 2004 [cited 2024 Aug 27]. p. 85–99. [Alliance For Global Sustainability Bookseries; vol. 11]. Available from: http://link.springer.com/10.1007/978-1-4020-6071-7_5
- [29]. BESBES A, Aliouat B. Les relations imbriquées entre Innovation managériale, Agilité et Performance : Vers une Innovation managériale agile et performante. 2019;
- [30]. Mol MJ, Birkinshaw J. The Role of External Involvement in the Creation of Management Innovations. *Organization Studies*. 2014 Sep;35[9]:1287–312.
- [31]. Hurley RF, Hult GTM. Innovation, Market Orientation, and Organizational Learning: An Integration and Empirical Examination. 1998;
- [32]. Mol MJ, Birkinshaw J. The sources of management innovation: When firms introduce new management practices. *Journal of Business Research*. 2009 Dec;62[12]:1269–80.
- [33]. D'Ambrosio A, Gabriele R, Schiavone F, Villasalero M. The role of openness in explaining innovation performance in a regional context. *J Technol Transf*. 2017 Apr;42[2]:389–408.
- [34]. Lapayre N, Lahmouz K, Moulette P, Rymeyko K. Innovations managériales: quelles pratiques pour améliorer les performances sociales et économiques? *Confédération française des travailleurs chrétiens, Institut de recherches économiques et sociales, editors. Paris: Confédération française des travailleurs chrétiens; 2022. [Arguments]*.
- [35]. Gebauer H, Gustafsson A, Witell L. Competitive advantage through service differentiation by manufacturing companies. *Journal of Business Research*. 2011 Dec;64[12]:1270–80.
- [36]. Hamel G, Breen B. *The Future of Management*. Harvard Business School Press; 2007.
- [37]. Camisón C, Villar-López A. Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*. 2014 Jan;67[1]:2891–902.
- [38]. Gunday G, Ulusoy G, Kilic K, Alpkan L. Effects of innovation types on firm performance. *International Journal of Production Economics*. 2011 Oct;133[2]:662–76.
- [39]. Ortigueira-Sánchez LC, Welsh DHB, Stein WC. Innovation drivers for export performance. *Sustainable Technology and Entrepreneurship*. 2022 May;1[2]:100013.
- [40]. Nieves J. Outcomes of Management Innovation: An Empirical Analysis in the Services Industry. *European Management Review*. 2016 Jun;13[2]:125–36.

- [41]. Walker RM, Damanpour F, Devece CA. Management Innovation and Organizational Performance: The Mediating Effect of Performance Management. *Journal of Public Administration Research and Theory*. 2010;21[2]:367–86.
- [42]. Staw BM, Epstein LD. What Bandwagons Bring: Effects of Popular Management Techniques on Corporate Performance, Reputation, and CEO Pay. *Administrative Science Quarterly*. 2000 Sep;45[3]:523–56.
- [43]. Drucker PF. The discipline of innovation. *Harvard Business Review*; 1998. 149-157. p.
- [44]. Pedler M, Boydell T, Burgoyne J. The Learning Company. *Studies in Continuing Education*. 1989 Jan;11[2]:91–101.
- [45]. Popper M, Lipshitz R. Organizational learning: mechanisms, culture, and feasibility. 2000;
- [46]. Garvin DA. Building a Learning Organization. *Harvard Business Review*; 1993. 78-91. p.
- [47]. Senge P. *The fifth discipline: The Art and Practice of the Learning Organization*. New York: Doubleday/Currency.; 1990.
- [48]. KARAA M. Les déterminants de l'adoption de la traçabilité par les entreprises de conditionnement de dattes en Tunisie. 2010.
- [49]. Lee LTS, Gandolfi F. A tertiary school organisation on the road to become a Learning Organisation. *International Journal of Innovation and Learning*. 2007;4[3]:290–307.
- [50]. Gil AJ, Rodrigo-Moya B, Morcillo-Bellido J. The effect of leadership in the development of innovation capacity: A learning organization perspective. *Leadership and Organization Development Journal*. 2018;39[6]:694–711.
- [51]. Yang B, Watkins KE, Marsick VJ. The construct of the learning organization: Dimensions, measurement, and validation. *Human Resource Dev Quarterly*. 2004 Mar;15[1]:31–55.
- [52]. Sharma B. Local government organisation on its journey to becoming a learning organisation. *Business Process Management Journal*. 2005;11[4]:388–402.
- [53]. Goh S, Richards G. Benchmarking the learning capability of organizations. *European Management Journal*. 1997 Oct;15[5]:575–83.
- [54]. Ng PT. The learning organisation and the innovative organisation. *Human Systems Management*. 2004; 23[2]:93–100.
- [55]. Sisaye S, Birnberg JG. Organizational development and transformational learning approaches in process innovations: A review of the implications to the management accounting literature. *Review of Accounting and Finance*. 2010;9[4]:337–62.
- [56]. Argyris C. Double Loop Learning in Organizations. *Harvard Business Review* [Internet]. 1977; Available from: <https://hbr.org/1977/09/double-loop-learning-in-organizations>
- [57]. Tannenbaum SI. Enhancing continuous learning: Diagnostic findings from multiple companies. *Hum Resour Manage*. 1997;36[4]:437–52.