

Research article

Impact of Organizational Learning on Dynamic Capabilities with Application on Egyptian Public Sector Pharmaceutical Companies

Ghada M. S. Abo El-Ata¹*

¹ Department of management, faculty of commerce, Damietta University, New Damietta 34511, Egypt; ghadasalahaboelata91@gmail.com

* **Correspondence:** ghadasalahaboelata91@gmail.com.

Abstract: The purpose of this study is to investigate the impact of organizational learning levels (individual, group, organization, feed forward, and feedback) on dynamic capability dimensions (sensing opportunities and threats, seizing opportunities, managing risks & reconfiguration). Furthermore, this study presented a set of recommendations to help the pharmaceutical industry establish administrative capabilities that will enable it to keep up with the frequent changes in the competitive environment. In this regard, the researcher employed a variety of statistical approaches to validate the hypotheses, including tests of validity and reliability, and multiple regression analysis. The results of the study concluded that there is a positive and significant impact of organizational learning levels on the dimensions of sensing opportunities and threats, and risk management & reconfiguration, while the study doesn't support the assumed relationship of organizational learning dimensions on dimension of seizing opportunities, where the positive and significant impact is limited to the level of the individual, the organization, feed-forward, and feedback. Hence, the results did not prove a significant effect of learning at the group level after seizing opportunities.

Keywords: Sector pharmaceutical; organizational learning; dynamic capabilities; managing risks; seizing opportunities.

APA Citation: Abo El-Ata, G. M. S. (2023). Impact of Organizational Learning on Dynamic Capabilities with Application on Egyptian Public Sector Pharmaceutical Companies. *Journal of Business and Environmental Sciences*, 2(1), 26-41.

1. Introduction

Organizations in the knowledge sector face constantly renewed challenges as a result of severe and unexpected fluctuations in the surrounding environmental conditions and the impact of this on their ability to survive and continue. Creativity has become the central aspect that supports the organization's

Received: 29 November 2022; **Revised:** 28 December 2022; **Accepted:** 4 January 2023; **Published:** 7 January 2023

The Scientific Association for Studies and Applied Research (SASAR)

<https://jcese.journals.ekb.eg/>

ability to achieve competitive advantages that keep pace with the changes in the environment (Felin & Powell, 2016; Rice et al., 2015; Teece, 2014).

Hence, Dynamic capabilities are one source of competitive advantage because they allow the organization to create new formations of resources and capabilities that it may possess or seize from the surrounding environment through alliances or acquisitions, and work on developing, maintaining, and exploiting them to face changes in the surrounding environment and achieve superiority over competitors (Krazakiewicz, 2013; Teece, 1997).

Teece (2009) defined dynamic capabilities as “the ability to sense and seize the new market opportunities that enable to reconfigure the knowledge assets and complementary capabilities” (Agarwal et al, 2014). Dynamic capabilities have three dimensions as follows; sensing opportunities and threats, seizing opportunities, and managing threats and reconfiguration.

For more explanation, depending on (Teece, 2007; Kindstrom et al, 2013; Leih&Teece, 2016; Wilden et al., 2012; Wu et al., 2012) studies, it can be said that, sensing opportunities and threats are achieved by examining the organization's internal and external environments, where the organization examines markets and areas of local and global technology and studies the change in customer cases, which must include examining the hidden demand of customers so that the organization can satisfy its needs and exceed its expectations. As well as, seizing opportunities is the second step after sensing opportunities and threats. At this stage, the organization determines a pattern to exploit the opportunities identified during the first stage, which leads to the creation of new activities, the identification of investment priorities, and the provision of various technologies to maximize the value that the client will obtain and attract him to an organization without others. Finally, managing threats and reconfiguration this dimension shows the organization's difficulties in relying on the same processes and routines for executing organizational activities on which it previously relied. As a result, the organization's ability to restructure resources and organizational structures and not be satisfied with the current pattern alone, but also resort to continuous development and change to keep pace with technological changes and market conditions, is critical to its profitability's long-term viability. Thus, the main objective of applying the approach of dynamic capabilities is to achieve a series of short-term competitive advantages that fit the environmental changes surrounding the organization, which leads to higher performance rates and enhanced innovation.

In this regard, organizational learning assists in interacting with the challenges of the surrounding environment by extracting new forms of knowledge and transforming them into products, strategies, and organizational structures that aid in adapting to the surrounding environment and achieving competitive advantages that support the organization's long-term survival (Lionzo & Rossignoli, 2013; Real et al. 2006; Morsy et al. (2022)).

Zollo and Winter (2002) defined it as: A set of capabilities comprised of empirical and cognitive processes that ensure the organization acquires knowledge and that all stakeholders in the organization participate in and benefit from it. Organizational learning is divided into five levels, with the individual, group, and organizational levels reflecting the learning stock and the feed forward and feedback processes referring to the learning flow between the three levels. These levels are integrated together by the 4 I model. It consists of intuiting, interpreting, integrating, and institutionalizing which ensure the progression of learning through the levels.

For more explanation, Individuals are the cornerstone of learning, whether they are from within the organization or have been recruited from outside to integrate the knowledge they possess into the organization's knowledge structure to facilitate its transfer to the level of the group and the level of the organization as a whole (Yu & chen, 2015). This level 4 I model appears through an intuitive process that focuses on the individual's skills and abilities, which aid in the generation of new ideas and visions, allowing the individual to propose new solutions to organizational challenges. Intuitive processes are based on either prior experiences that allow individuals to exploit information or on an innovative orientation that is based on the explorative part of learning and allows individuals to produce new ideas and ongoing improvements (Crossan et al, 1999; Sun&Anderson, 2010; Jenkin, 2013).

In addition, the desired goal of learning can only be reached by involvement at various levels and the development of a common language of communication that allows for knowledge integration as well as the proper transfer and direction of information (Crossan et al, 1999; Huber, 1991).

Hence, Learning at the level of the group is an extension of learning at the individual level, as it passes through four stages: Continued learning, collected learning, constructed learning, and continuous learning. In which knowledge is transferred from each individual's memory into a cognitive pattern that aids in identifying the identity of the work team and deepening awareness of learning-related activities (Sambrook & Roberts, 2005). According to 4I model, interpreting process knowledge is

transferred from each individual's memory into a cognitive pattern that aids in identifying the identity of the work team and deepening awareness of learning-related activities (Crossan & Berdrow, 2003). Accordingly, through the organization's process of intuition and interpretation at the individual and group levels, a set of new ideas are identified to be tested for their validity to be the basis for the organization's cognitive maps and to banish any visions or ideas that may be invalid and not accepted within the organization (Lawrence et al, 2005).

Individual learning processes are followed by group learning processes, and the return on this learning is represented at the organizational level as a whole (Aksoy et al, 2014). However, it is inaccurate to restrict the learning outcomes to the individual and group learning inventories because both are vulnerable to constant change, but the true lesson of learning is the behaviors, values, and standards that have been encoded in the organizational memory (Fiol & Lyles, 1985).

Regarding to the 4I model, the integrating process leads to group and organizational cohesion and practice aggregation. It focuses on the development of organizational practices as a result of knowledge and experience exchange. The process of cohesiveness begins haphazardly and informally, and then crystallizes via practice coordination to the process of institutionalizing (Sun & Anderson, 2010). Institutionalizing is limited to the group level. It involves the integration of beliefs and visions into the structure, strategy, and practices, as well as the explanation of clear procedures for their implementation via a routine encoded in organizational memory that is unrelated to an individual's stay or departure from the organization (Crossan et al., 1999; Jones and Macpherson, 2006).

After reviewing the levels of learning, Bointes et al. (2002) saw that Learning levels are related to one another via feed-forward and feed-back learning flow. Feed-forward is concerned with maximizing the benefits that the organization derives from the learning process at the individual and group levels, as well as the extent to which it can effect change in the organization's structure, processes, procedures, strategies, and culture. While feedback is concerned with generalizing knowledge encoded in organizational memory and highlighting that it benefits both the individual and the work team, it also ensures the dynamics of the learning process (Jenkin, 2013).

It is important to distinguish between learning organization and organizational learning. The learning organization is the ideal state that organizations strive towards, whereas organizational learning is the procedures that organizations use to get there (Tsang, 1997; Yu & Chen, 2015). Besides, Organizational learning is regarded as one of the sources of variability among organizations and one

of the reasons for obtaining competitive advantages that aid in survival and continuity because it is dependent on the organization's ability to absorb knowledge (Real et al, 2006). Thus, several studies have focused on addressing organizational learning through various perspectives, some of which regard it as an organizational culture and others as a dynamic capability.

On one hand, organizational learning culture is a set of values and norms that guide organizational performance with the goal of obtaining information and adjusting organizational behavior in accordance with the new knowledge patterns that the company will acquire in order to increase levels of innovation (Skerlavaj et al., 2010; Song & Chermack, 2008; Yu & Chen, 2015). On the other hand, (Bustinza et al., 2010; Santos-vijande, 2012; Kandermirand & Hult, 2005) said that organizational learning is a dynamic capability. Researchers considered learning to be the only dynamic ability that contributes to maximizing the value obtained by customers in the long run, through which products and services that suit the needs of customers in various market segments can be provided. In this line, the researcher here adopts the approach that considers organizational learning as a dynamic capability. In light of this, and after studying the pharmaceutical sector's problems in the Arab Republic of Egypt, we can conclude that there are increasing rates of change and intense competition between the Egyptian market and global markets, in addition to the weak ability of pharmaceutical companies, both public and private sector, to compete and keep pace with the business environment's successive changes.

Based on the previous discussion, this paper contributes to the literature from two perspectives that are concluded as follows; this paper extends the research on the relationship between organizational learning and dynamic capabilities, which still needs more investigation and analysis (Bustinza et al., 2010). So, there have been few studies that addressed the influence of the relationship between the two variables based on the dimensions that the researcher dealt with, and this study is one of the first to attempt to fill that gap. Besides, the study gave a set of recommendations to help pharmaceutical companies in the Arab Republic of Egypt improve their learning mechanisms and then restructure their capabilities, particularly after worldwide changes in the business environment.

2. The Hypothesis Development:

The interaction of a variety of learning processes that attempt to modify and renew the organization's ability, skills, and knowledge in order to keep up with the increasing changes and challenges in the environment around the organization results in developing dynamic capabilities (Zollo & Winter,

2002). Moreover, a healthy organizational climate fosters the development of dynamic capabilities that enable the adoption of modern operational procedures, the provision of products and services that meet the evolving needs of customers, and the adaptation to a changing environment. So, Jiao et al. (2010) explored the effect of organizational learning levels on dynamic capabilities in (180) high-tech companies and found a positive and significant relationship between them.

In line with these findings, Hawass (2010) introduced a study that investigated the effect of reconfiguration as a dimension of dynamic capabilities on the levels of organizational learning in (83) British software companies. The results showed a positive and significant relationship between reconfiguration and organizational learning at the group and organizational level but didn't support the effect of other levels of learning on dynamic capabilities. The researcher justified these results because individuals can't make radical innovations as they concentrate only on knowledge that does not fall within the scope of their occupational specialization however, learning at the group level can overcome this shortcoming through building flexible learning activities that enable individuals to learn and innovate in light of the strategic vision of organizations.

From another point of view, Chien and Tsai (2012) adopted another dimension of the organizational learning as follows: accumulation of experiences, building knowledge, and coding knowledge and explore their effects on dynamic capabilities of (132) fast-food restaurants in China. The results showed a positive and significant relationship between them also the researcher found a mediating role of organizational learning on the relationship between cognitive resources and dynamic capabilities. Cognitive resources alone are insufficient for the development of dynamic capabilities. As a result, cognitive resources and learning processes increase the exchange of experiences and knowledge among organization employees, which improves the storage of learning in the organization's memory and facilitates its restoration.

Based on the above, we can say that improving organizational learning levels will help to develop knowledge specific to each work team and exchange it with other work teams, which helps to build an organizational memory that supports the development of new and innovative organizational capabilities through, for example, its support for the organization's strategic plans such as alliances and acquisitions with other entities, as well as its role in removing some capabilities that it no longer keeps up with environmental changes.

Based on the above discussion, we raise the following hypothesis:

A) There is a significant effect of the organizational learning levels on the dynamic capability's dimensions.

This dimension decomposed into the following sub dimensions:

1.A) There is a positive and significant effect of organizational learning levels on sensing opportunities.

2.A) There is a positive and significant effect of organizational learning levels on seizing opportunities.

3.A) There is a positive and significant effect of organizational learning levels on managing risks and reconfiguration.

3. Methodology:

The researcher showed the philosophy, approach, and methods of this research. This chapter also introduced the data collection techniques and their time period, the way of variable measurement. Moreover, it presents the sample issues that involve sampling frames, size, and techniques.

The study population consists of top and middle managers in pharmaceutical companies' research and development, production, quality assurance, and planning departments.

The companies are affiliated with the Holding Company for Pharmaceuticals, and they are exclusively (Memphis Pharmaceutical Industries Companies and Chemicals, Cairo Pharmaceutical and Chemical Industries, Industries Development Company Chemical (Syd), El Nasr Pharmaceutical Industries, Alexandria Pharmaceutical Industries, Company Misr Pharmaceutical Industries, and Nile Pharmaceutical Industries Company), and then reached the community of the study's (113) top-level managers and (243) middle-level managers. The study employed a survey of all 356 managers in the companies under study in order to obtain answers with a high level of accuracy and comprehensiveness.

The scale (Bointes et al., 2002) was used to measure the dimensions of organizational learning at the individual, group, and organizational levels, as well as the forward and backward flow of learning, and the scale (Wilden et al., 2013) was used to measure the dimensions of dynamic capabilities, which

include sensing opportunities and threats, seizing opportunities, and managing risks and reconfiguration.

Cronbach's alpha reliability coefficient was found by the researcher to evaluate the feasibility of generalizing the study's conclusions as the minimal value of the reliability rate should not be less than (.7) (Nunnally, 1975). The results of the test were as follows:

Table (1): The reliability and validity of the survey items

NO.	Variable	Reliability (Alpha)	Validity
1	Organizational learning	0.944	0.972
2	Individual level learning	0.703	0.837
3	Group level learning	0.861	0.928
4	Organizational level learning	0.929	0.964
5	Feed-forward learning	0.903	0.950
6	Feed-back learning	0.702	0.838
7	Dynamic capabilities	0.916	0.957
8	Sensing opportunities and threats	.701	0.766
9	Seizing opportunities	0.915	0.957
10	Managing risks and reconfiguration	0.854	.924

Source: prepared by the researcher

As indicated in the table, the list has high levels of validity and reliability, as most of the values are near to one, indicating the scale's efficiency and statistical acceptance for evaluating the study's hypotheses and the possibility of generalizing them to society as a whole.

As a result, the multiple regression approach was employed to test the hypotheses' validity, and the results were as follows; regarding the first hypothesis, which states that organizational learning dimensions have a positive and significant effect on the dimension of sensing opportunities and threats.

The results were as follows:

As shown from Table (2), the estimated significance of the regression model was statistically proven at the 1% level of significance, which amounted to-(calculated) F-value 484.208 (F) p-value =.000 (less than 1% significant level). The significance of the regression coefficients and the constant is

illustrated by the values of (t) and (Sig), which are less than 5% of their significant level. So, the researcher accepted this hypothesis.

Table (2): Estimates from a multiple regression model assessing the impact of organizational learning dimensions on sensing opportunities and threats.

R ²	F(Sig.)		Regression	T	Sig
0.886	484.208 (0.000)	constant	2.577	19.633	0.000
		Individual	0.766	15.096	0.000
		Group	0.085	2.725	0.007
		Organization	0.255	7.229	0.000
		Feed-forward	0.347	10.993	0.000
		Feed-back	0.488	12.686	0.000

Source: prepared by the researcher

By looking at the results of the previous table, it becomes clear that the most important dimensions of organizational learning, which affect the dependent variable (sensing opportunities and threats), are learning at the individual level, followed by feedback learning, then the feed-forward process, then learning at the organizational level, and finally learning at the level of the group and these dimensions explain a percentage (88.6%) of the changes that occur in sensing opportunities and threats. The percentage (11.4%) is due to other factors, including the random error in the equation or not to include variables that were supposed to be included.

Secondly, the regression model that estimated the effect of organizational learning dimensions on seizing opportunities showed the following results:

Table (3): Estimates from a multiple regression model assessing the impact of organizational learning dimensions on seizing opportunities.

R ²	F(Sig.)		Regression	T	Sig
0.999	59121.127 (0.000)	Constant	-0.325	-16.642	0.000
		Individual	0.387	51.294	0.000
		Group	0.007	1.474-	0.142
		Organization	0.386	73.694	0.000
		Feed-forward	0.022	4.601	0.000
		Feed-back	0.312	54.645	0.000

Source: prepared by the researcher.

The estimated significance of the regression model was statistically proven at the level of significance of 1%, which amounted to-(calculated) F-value 59121.127 (f) p-value =.000 (less than the 1% level of significance, and it is clear from the previous table, the significance of the regression coefficients and the constant (except for what is related to the group level learning) where (t) and (Sig), both of which are less than 5% significant.

By looking at the results of the previous table, it becomes clear that the most important dimensions of organizational learning, which affect the dependent variable (seizing opportunity), are learning at the individual level, followed by learning at the organizational level, then the feedback process, and then the forward feed process. These dimensions explain 99.9% of the changes that occur in seizing opportunities, with the remaining 1% due to other factors, including random errors in the equation or not including other independent variables that were supposed to be included. Moreover, it has not been statistically proven that there is a significant relationship between organizational learning at the group level and opportunity seizing.

The researcher explains that this is due to the inability of the employees of these organizations to form work teams, overcome conflicts, and accept different points of view successfully. Hence, their ability to benefit from the opportunities that would improve the organization's competitive position and realize the risks they face as a result of changing customer needs and the speed of technological developments decreases due to their preoccupation with conflicts that surround the work team.

Finally, the results of the third hypothesis are shown in the next table:

Table (4): Estimates from a multiple regression model assessing the impact of organizational learning dimensions on managing risks and reconfiguration.

R ²	F(Sig.)		Regression	T	Sig
0.999	59121.127 (0.000)	Constant	0.440	2.092	0.037
		Individual	0.384	4.283	0.000
		Group	0.183	3.663	0.000
		Organization	0.378	6.692	0.000
		Feed-forward	0.626	12.380	0.000
		Feed-back	0.346	5.617	0.000

Source: prepared by the researcher.

Based on the previous table, the estimated significance of the regression model was statistically proven at the level of significance of 1%, which amounted to F-value (calculated) 246.827 (f) p-value =.000 (less than 1% significant level). It is clear from the previous table the significance of the regression coefficients and the constant (except for what is related to learning at the group level through the values of (t) and (sig.%), which is less than the level of significance 5%.

It becomes clear that the most important dimensions of organizational learning, which affect the dependent variable (risk management and reconfiguration), is the process of forwarding feeding, followed by learning at the level of the organization, then learning at the individual level, then the process of feedback, and finally learning at the group level. These dimensions explain (79.9%) of the changes that occur in risk management and reconfiguration, and the remaining percentage (20.1%) is due to other factors, including random error in the equation or Do not include other independent variables that are supposed to be included.

4. Results:

This study focused on studying the relationship between organizational learning and dynamic capabilities, based on the division of organizational learning dimensions into (learning at the individual level, learning at the group level, learning at the organizational level, forward feeding of learning, feedback learning), and dividing the dimensions of dynamic capabilities into (sensing opportunities and threats, seizing opportunity, risk management and reconfiguration).

This study differs from (Jiao et al., 2010) in that it included other dynamic capability dimensions, including the ability to sense the environment, the ability to renew and change, the flexibility of technological capabilities, and the flexibility of organizational capabilities. While the (Hawass, 2010) study was limited to examining the dimension of reconfiguration and its relationship to organizational learning.

So, after testing the hypotheses, the research found that organizational learning dimensions have a positive and significant effect on sensing opportunities and threats. Organizational learning dimensions explained (88.6%) of the changes that occur in sensing opportunities and threats. Where employees use their skills, abilities, knowledge, and experience to examine and evaluate market indicators based on the most recent technological developments, with the goal of identifying strengths and weaknesses within companies as well as opportunities and threats in the surrounding environment. This helps to

build a successful team that overcomes conflicts and accepts and discusses all points of view. These results agreed with (Jiao et al, 2010) who found a positive and significant effect of organizational learning dimensions on sensing opportunities.

Additionally, the researcher found that all levels of organizational learning except group level have a significant effect on seizing opportunities and these levels explain (99.9%) of the changes that occur in seizing opportunities. This might be because the work team was unable to overcome differences in thoughts and viewpoints when it came to selecting a certain market opportunity or a specific technological field to exploit in order to deliver new products or services.

Finally, organizational learning dimensions explained about (79.9%) of the changes in managing risks and reconfiguration. Workers used their knowledge stock to reconfigure skills and resources in order to create new services and goods that were innovative and renewed. The results of this study differ slightly from the results of the study (Hawass, 2010). The researcher found that there wasn't a significant relationship between individual organizational learning and reconfiguration because individuals alone cannot provide radical innovations that would reconfigure capabilities.

Accordingly, it can be said that there is a significant positive effect of organizational learning on dynamic abilities in agreement with the study of (Chein & Tsai, 2012) as they found a positive and direct relationship between organizational learning and dynamic capabilities.

5. Conclusion:

The fundamental issue confronting Egypt's pharmaceutical sector is intellectual and administrative stagnation; thus, these companies must overcome traditional ways of thinking and bureaucracy in order to promote creativity and innovation. Furthermore, the necessity of following the principle of delegation of authority in a way that ensures a fair allocation of responsibilities in order to foster a spirit of participation and cooperation among members of the work team in order to improve decision-making quality.

Furthermore, companies in Egypt must alter their future prospects in the pharmaceutical industry. Instead of depending solely on the principle of crisis management, radical changes in organizational structure and routine are required to support the efficient and effective implementation of regulatory responsibilities in a way that supports the competitive situation among global pharmaceutical companies.

Based on the foregoing, we recommend that pharmaceutical companies define strategic directions in terms of vision, goals, and future plans, as well as promote an organizational innovation culture and choose administrative staff based on competency. We also recommend that public-sector companies form alliances with foreign companies that manufacture raw materials used in the manufacture of medicines, which helps Egyptian companies gain new experience and administrative skills that allow them to enter global markets and improve services provided to Egyptian patients.

References

- Agarwal, R., Selen, W., Sajib, S., & Scerri, M. (2014). Dynamic capability building in service networks: An exploratory case study. *The Journal of New Business Ideas & Trends*, 12(1), 27.
- Aksoy, M., Apak, S., Eren, E., & Korkmaz, M. (2014). Analysis of The Effect of Organizational Learning-Based Organizational Culture on Performance, Job Satisfaction and Efficiency: A Field Study in Banking Sector. *International Journal of Academic Research*, 6(1).
- Bontis, N., Crossan, M. M., & Hulland, J. (2002). Managing an organizational learning system by aligning stocks and flows. *Journal of management studies*, 39(4), 437-469.
- Bustinza Sánchez, Ó. F., Molina Fernández, L. M., & Arias Aranda, D. (2010). Organizational learning and performance: Relationship between the dynamic and the operational capabilities of the firm.
- Chien, S. Y., & Tsai, C. H. (2012). Dynamic capability, knowledge, learning, and firm performance. *Journal of Organizational Change Management*.
- Crossan, M. M., & Berdrow, I. (2003). Organizational learning and strategic renewal. *Strategic management journal*, 24(11), 1087-1105.
- Crossan, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Academy of management review*, 24(3), 522-537.
- Felin, T., & Powell, T. C. (2016). Designing organizations for dynamic capabilities. *California Management Review*, 58(4), 78-96.
- Fiol, C. M., & Lyles, M. A. (1985). Organizational learning. *Academy of management review*, 10(4), 803-813.
- Hawass, H. H. (2010). Exploring the determinants of the reconfiguration capability: a dynamic capability perspective. *European Journal of Innovation Management*, 13(4), 409-438.

- Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization science*, 2(1), 88-115.
- Jenkin, T. A. (2013). Extending the 4I organizational learning model: Information sources, foraging processes and tools. *Administrative Sciences*, 3(3), 96-109.
- Jiao, H., Wei, J., & Cui, Y. (2010). An empirical study on paths to develop dynamic capabilities: From the perspectives of entrepreneurial orientation and organizational learning. *Frontiers of Literary Studies in China*, 4(1), 47-72.
- Jones, O., & Macpherson, A. (2006). Inter-organizational learning and strategic renewal in SMEs: extending the 4I framework. *Long Range Planning*, 39(2), 155-175.
- Kandemir, D., & Hult, G. T. M. (2005). A conceptualization of an organizational learning culture in international joint ventures. *Industrial marketing management*, 34(5), 430-439.
- Kindström, D., Kowalkowski, C., & Sandberg, E. (2013). Enabling service innovation: A dynamic capabilities approach. *Journal of business research*, 66(8), 1063-1073.
- Krzakiewicz, K. (2013). Dynamic capabilities and knowledge management. *Management*, 17(2), 1.
- Lawrence, T. B., Mauws, M. K., Dyck, B., & Kleysen, R. F. (2005). The politics of organizational learning: Integrating power into the 4I framework. *Academy of management review*, 30(1), 180-191.
- Leih, S., & Teece, D. (2016). Campus leadership and the entrepreneurial university: A dynamic capabilities perspective. *Academy of management Perspectives*, 30(2), 182-210.
- Lionzo, A., & Rossignoli, F. (2013). Knowledge integration in family SMEs: an extension of the 4I model. *Journal of Management & Governance*, 17(3), 583-608.
- Nunnally, J. C. (1975). Psychometric theory—25 years ago and now. *Educational Researcher*, 4(10), 7-21.
- Morsy, M. M. E., Alshamlan K. A. & Alanzy Y. H. H. (2022). The Mediating Role of Proactive Work Behavior in The Relationship Between Authentic Leadership and Crisis Management. *Journal of Business and Environmental Sciences*, 1(1), 1-23.
- Real, J. C., Roldán, J. L., & Leal, A. (2014). From entrepreneurial orientation and learning orientation to business performance: analyzing the mediating role of organizational learning and the moderating effects of organizational size. *British Journal of Management*, 25(2), 186-208.
- Rice, J., Liao, T. S., Galvin, P., & Martin, N. (2015). A configuration-based approach to integrating dynamic capabilities and market transformation in small and medium-sized enterprises to achieve firm performance. *International Small Business Journal*, 33(3), 231-253.

- Santos-Vijande, M. L., López-Sánchez, J. Á., & Trespalacios, J. A. (2012). How organizational learning affects a firm's flexibility, competitive strategy, and performance. *Journal of business research*, 65(8), 1079-1089.
- Škerlavaj, M., Song, J. H., & Lee, Y. (2010). Organizational learning culture, innovative culture and innovations in South Korean firms. *Expert systems with applications*, 37(9), 6390-6403.
- Song, J. H., & Chermack, T. J. (2008). A theoretical approach to the organizational knowledge formation process: Integrating the concepts of individual learning and learning organization culture. *Human Resource Development Review*, 7(4), 424-442.
- Sun, P. Y., & Anderson, M. H. (2010). An examination of the relationship between absorptive capacity and organizational learning, and a proposed integration. *International journal of management reviews*, 12(2), 130-150.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 18(7), 509-533.
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic management journal*, 28(13), 1319-1350.
- Teece, D. J. (2014). The foundations of enterprise performance: Dynamic and ordinary capabilities in an (economic) theory of firms. *Academy of management perspectives*, 28(4), 328-352.
- Tsang, E. W. (1997). Organizational learning and the learning organization: a dichotomy between descriptive and prescriptive research. *Human relations*, 50(1), 73-89.
- Wilden, R., Gudergan, S. P., Nielsen, B. B., & Lings, I. (2013). Dynamic capabilities and performance: strategy, structure and environment. *Long range planning*, 46(1-2), 72-96.
- Wu, Q., He, Q., Duan, Y., & O'Regan, N. (2012). Implementing dynamic capabilities for corporate strategic change toward sustainability. *Strategic Change*, 21(5), 231.
- Yu, T., & Chen, C. C. (2015). The relationship of learning culture, learning method, and organizational performance in the university and college libraries in Taiwan. *Libri*, 65(1), 1-14.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization science*, 13(3), 339-351.

تأثير التعلم التنظيمي على القدرات الديناميكية مع التطبيق على شركات الأدوية بالقطاع العام المصري

غادة محمد صلاح أبو العطا¹

¹ قسم الإدارة، كلية التجارة، جامعة دمياط، دمياط الجديدة 34511، مصر

المخلص: الغرض من هذه الدراسة هو التحقيق في تأثير مستويات التعلم التنظيمي (الفرد، المجموعة، المنظمة، التغذية إلى الأمام، وردود الفعل) على أبعاد القدرة الديناميكية (استشعار الفرص والتهديدات، اغتنام الفرص، إدارة المخاطر وإعادة التشكيل). علاوة على ذلك، قدمت هذه الدراسة مجموعة من التوصيات لمساعدة صناعة الأدوية على إنشاء قدرات إدارية تمكنها من مواكبة التغيرات المتكررة في البيئة التنافسية. في هذا الصدد، استخدم الباحث مجموعة متنوعة من الأساليب الإحصائية للتحقق من صحة الفرضيات، بما في ذلك اختبارات الصدق والثبات، وتحليل الانحدار المتعدد. وخلصت نتائج الدراسة إلى وجود تأثير إيجابي ومعنوي لمستويات التعلم التنظيمي على أبعاد الاستشعار عن الفرص والتهديدات وإدارة المخاطر وإعادة التشكيل، بينما لا تدعم الدراسة العلاقة المفترضة لأبعاد التعلم التنظيمي على بعد اغتنام الفرص، حيث يقتصر التأثير الإيجابي والمعنوي على مستوى الفرد والمنظمة والتغذية المستقبلية والتغذية الراجعة. ومن ثم، فإن النتائج لم تثبت وجود تأثير كبير للتعلم على مستوى المجموعة بعد اغتنام الفرص.

الكلمات المفتاحية: قطاع الأدوية؛ تعليم نظامي؛ قدرات ديناميكية؛ إدارة المخاطر؛ اغتنام الفرص.