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The Environmental Turbulence's Effect on Organizational Learning (Review paper)

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Abstract: The aim of this study is to shed light on the environmental turbulence's effect on organizational learning and evaluated degree of turbulence be reviewing the related work. Organizational learning is a field of study in business that is always evolving and generating new techniques for efficiently responding to the environment's dynamic and disruptive developments. Organizations who are best able to anticipate and comprehend environmental developments, then proactively position their organization through an effective OL system, have a better chance of establishing a competitive edge. This advantage is based on the organization's capacity to analyze external data and apply that information to the organization's internal processes. This study reported that enhanced organizational capabilities performance, such as improving the pace of fostering innovation, knowledge application, and transfer to mention a few, will arise as a result of the use of this knowledge. Given that an organization's learning process is impacted by, and in many cases based on its ability to respond to environmental turbulence, a logical extension of reasoning would be that environmental turbulence has an impact on organizational learning efficacy. Organizational learning methods that are well-designed and implemented are critical for determining the real amount of environmental turbulence.

Keywords: Environmental Turbulence, Organizational Learning.

1 Introduction

Organizational learning (OL) is a field of study in business that is always evolving and generating new techniques for efficiently responding to the environment's dynamic and disruptive developments. Firms who are best able to anticipate and comprehend environmental developments, then proactively position their company through an effective OL system, have a better chance of establishing a competitive edge. This advantage is based on the organization's capacity to analyze external data and apply that information to the organization's internal processes. Enhanced organizational capabilities performance, such as improving the pace of fostering innovation, product/market inventiveness, knowledge application, and transfer, to mention a few, will arise as a result of the use of this knowledge, according to the study. Given that a firm's organizational learning process is impacted by, and in many cases based on its ability to respond to environmental turbulence, a logical extension of reasoning would be that environmental turbulence has an impact on organizational learning efficacy. Organizational learning methods that are well-designed and implemented are critical for determining the real amount of environmental turbulence. The company can only match its skills with their plan by analyzing and

responding to a correctly evaluated degree of turbulence. As a result, in order to beat rivals, businesses will need to be more proactive in building their "future by design," which will include more innovative strategic "thinking" rather than inflexible, traditional "planning."

Several research findings has reported that including effective organizational learning into the decision-making process will improves organizational performance, furthermore the organizational learning has a beneficial impact on corporate performance when employees perform better in strategic decision-making procedures [1]. It is reality that when businesses displaying a higher learning values, the target market information processing will habit as well as the analytical abilities will increased [2]. Morgan and Turnell (2003), reported that the organization's increased information processing and analytical capabilities had a direct influence on the market-based results it was able to achieve. Even though companies heavily rely on external knowledge to fuel creativity and innovation for improved organizational performance, making the best use of external knowledge for an organization's future strategic growth remains a significant issue [3]. Yang, Wang, and Niu (2007), defined learning as the process by which knowledge is refreshed, and found that while organizational learning can have a significant impact on corporate performance, only high-tech and

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financial firms have consistently applied organizational learning processes throughout their organizations. However, it is wise for businesses to keep organizational learning process activated and keep it up all over the work cycle, as it helps in creation, retention and transfer of knowledge within the organization which will build up the organization as a whole.

2 Environmental Turbulence:

Environmental turbulence, has been defined as the combined measurement of changeability, instability, and predictability as represented in the complexity and novelty of change in the environment [4]. Ansoff (1993), classified the environment into two fundamental groups, according to Gianos (2013), steady and discontinuous. "Decisions regarding the future are based on past and current occurrences that can be extrapolated into the future" in stable situations. Change is defined as gradual, repeatable, and observable. "The future is partially apparent and predictable in discontinuous settings; thus, change is possible by relying on weak signals from the environment".

Whereas, "The environment is a set of components and their relevant qualities, whose elements are not members of the system, nonetheless a change in any of them might cause a change in the state of the system [5]. As a result, the environment includes "all variables that potentially impact its (the firm's) condition. The environment has been separated into internal and external components, which are differentiated by whether the components are located inside or outside the organization [6]. Duncan's (1972), environmental viewpoint varies from that of Glueck *et al.*, (1980) [7], who solely consider external circumstances and effects from the environment, ignoring interior factors.

Emery and Trist were the first to develop the notion of turbulence in 1965. Multiple component groups (competition, consumers, suppliers, shareholders, general market, regulatory bodies, legislative bodies, technology, economics, and society) impact the business environment, according to them, each with distinct disruptive elements. [8], described environmental turbulence as an organization's apparent inability to effectively and properly analyze the external environment's impacts or future changes induced by the external environment that may occur. Milliken's perspective differs from Ansoff's in that he believes the organization has limited alternatives for responding to changes in the turbulence level.

[9], adopt a limited view of turbulence, attributing its origins to market upheavals, shifting consumer mix and preferences, and technology advancements. Firms should modify their strategy based on the frequency and unpredictability of changes in technology and/or consumer preferences, according to the authors.

According to Ansoff, (1979) [10], environmental turbulence is a function of changeability and predictability,

which is a combination of market environment changeability, speed of change, intensity of competition, abundance of technology, customer discrimination, and pressures from governments and influence groups (Ansoff, 1979). To be more exact, predictability examines the clarity and competence of the firm's information dealing with changes for strategic decision-making, whereas changeability reflects the novelty and pace of change in the business environment.

The Levels of Turbulence which was developed by Ansoff (1979), classified the environmental turbulence into five categories: Recurrent, Expanding, Changing, Discontinuous, and Unexpected. Now, organizations that match their strategic aggressiveness and supportive capabilities to the increased level of turbulence have a higher strategic performance level than firms that fail to align strategy/capabilities to the increased turbulence level, referred to as the organization's strategic posture, when the level of environmental turbulence shifts and becomes increasingly disruptive.

However, there are a variety of factors influence how management responds to external changes, including organizational inertia, tradition, size, skills, management ambition, and organizational capacities.

Again and in this context, Ansoff and McDonnell (1990) [4], draw a distinction between the perceived and actual environments. As a result, decision-makers must be able to distinguish between perceived and actual environmental turbulence. This gap between perception and reality in terms of organizational competence, as well as aspects like culture, leadership, structure, and resources, must be addressed [11].

This also conclude a very significate fat which, if the correct strategic decision is taken, management must guarantee that the organization is built in such a way that this decision can be supported. Therefore, in order to improve organizational performance, companies must first conduct a thorough diagnostic and analysis of the environment in order to determine the degree of turbulence, and then select an appropriate mode of strategic action based on the results.

3 Organizational Learning and its Nature:

Now, it is becomes impotent part of today modern organization those seeking a postion in this fast and rapid world, knowledge acquisition, information dissemination, information interpretation, and organizational memory are frequently used to explain organizational learning. However, Huber, (1991) [12], reported that this simple model falls short of explaining the complexities of organizational learning. There have been several theories with varied views of organizational learning presented in literature as a result of scholars attempting to analyze and apply organizational learning using various methodologies, concepts, and features throughout history. To keep the debate on track, the many definitions of organizational

learning provided by academics from various viewpoints will not be explored in detail, but simply in terms of its dynamic character. As a result, the features of its nature will be discussed in this part.

Several aspects of the nature of organizational learning are being debated throughout time, such as whether or not organizational learning incorporates a multilayer structure. All people, groups, and organizational levels are included in the multi-level paradigm, and their impacts on cognition, insight, and creativity pass from one level to the next [13] [14]. From a strategic standpoint, it is apparent that this learning transference creates benefits for the organization's future competitive position when it is precisely shared, implemented, developed, and institutionalized throughout the organization's levels [15] [16] [17] [18].

In organizational learning, four different learning processes and three different stages have been discovered. There are procedures of intuiting and interpreting at the individual level; there is a process of integrating at the group level; and there is a process of institutionalizing at the organizational level [16]. The four learning processes lay underneath the three levels and flow and link seamlessly from one to the next. Interpreting is the process of communicating an insight or concept from one person to another by words or conduct. Intuiting is the discovery of the pattern and potential inherent in a personal stream of experience.

Integrating is the process of fostering common understanding among people and taking coordinated action via mutual adjustment, while institutionalizing is the process of ensuring that routines and activities are carried out in a consistent manner inside organizations.

Organizational learning may be viewed as one of the methods for accomplishing a company's strategy renewal. According to March (1991), renewal necessitates the company's exploration and learning of new methods while also implementing what they have previously learnt; hence, strategic renewal should be focused on the whole organization that functions in an open system rather than a single internal emphasis Duncan [19].

According to March (1993), organizations should carefully manage the tension between exploration and exploitation by "maintaining an acceptable balance" since they are both vital and needed for an organization's development, but also "compete for finite resources" at the same time. Researchers recently discovered that the advantages and results of learning are highly influenced by the level of environmental turbulence; for example, when the environment is more stable, organizational learning is more likely to be successful [20] [21].

In addition, Boyne and Meier (2009) [22], discovered that companies in turbulent settings had a harder time performing effectively, stating that "turbulence is negative for performance, thus actions should be made to avoid or reduce its effects". Organizational learning happens at any degree of environmental turbulence and has a beneficial impact on the ability of the company to innovate. The benefits of stability, according to Hannan and Freeman

(1977) [23], may be dependent on whether the organization works in the generalist or specialist category. Ander, Ruiz-Aliseda, and Zemsky (2016) [24], looked at company positioning within an industry using their equilibrium model of positioning. Their specialist classification aligns to Porter's Generic Competitive Strategy model, defining a specialist as a "cost leader" targeting the low-end sector and a "differentiator" targeting the high-end segment. Generalists, according to Ander, Ruiz-Aliseda, and Zemsky (2016) [24], are "able to target both sectors" and "therefore have better capacity to leverage economies of scale".

"In uncertain settings, organizations should create a generalist structure that is not ideally suited to any particular environmental configuration but is optimal throughout a whole range of configurations," Hannan and Freeman recommended.

4 Cognition Affects Action:

Because understanding leads to actions, and action concurrently informs understanding [25], the connection between cognition and action is important to the organizational learning process. This trait also applies to double-looping learning, which is a critical component of organizational learning.

When considering the nature of organizational learning, it is clear that it is a dynamic process. It occurs over time and across levels, and it also creates a tension between absorbing new information and exploiting what has already been learned; it involves multiple levels and influences one another when they interact; and its cognition process leads to action, as well as the experience of action supporting possible new cognition.

As a result, individual, group, and organizational learning processes have been institutionalized and influenced, and organizational learning has evolved into a constantly adaptive process in order to cope with the changing environment by requiring organizations to sense changes proactively and adapt accordingly.

5 The Impact of High Environmental Turbulence on Organizational Learning:

According to Levinthal & March [20], 1993; Jansen, *et al.*, 2006, [20] when the environment is steady, the outcome of organizational learning is more likely to be successful. According to Hanvanich *et al.*, (2006) [26], if industries are segmented into different levels, relatively stable industries should be better able to establish long-term structures and processes of organizational learning due to the benefits of accumulated knowledge over time, whereas in comparably dynamic industries, instead of focusing on accumulated knowledge, a short-term, more profitable strategy should be pursued.

Other academics, on the other hand, disagree, claiming that

high levels of environmental turbulence have a good impact on organizational learning. According to Freeman and Perez (1988), [27] disruptive technological developments generate significant increased environmental turbulence for companies, and when confronted with these shifts, they will favorably respond to those disruptive changes. Because various degrees of turbulent environments imply different values of dynamic capabilities, Eisenhardt and Martin (2000), [28] addressed the relevance of the environment in assessing the influence of capabilities in organizational learning.

According to Srivastava and Frankwick (2011), [29] the degree of environmental instability influences how organizational learning occurs, including top management's attitude, purpose, and receptivity to organizational learning. Firms with an advanced organizational learning will also continue to monitor the environment for signs of demand saturation, technology substitution, structural changes in consumer demand, social and political discontinuities, and assess the future inherent profitability and growth in their historical markets, according to empirical research conducted by Ansoff and Sullivan (1993) [30].

Consequently, organizational learning may be regarded as a proactive response to the need to adjust for the higher level of uncertainty posed by rising turbulence, and it has been responsible for shifting strategic direction in order to maintain a competitive position [31] [33]. However, the emphasized on strategic management roles is growing more and more in every organizations [34]. The higher and top managerial power is an important in avoiding any issues related to top teams and strategic decision making.

6 Discussions and Conclusions

It can be deduced from the preceding sections on organizational learning and environmental turbulence that they have one thing in common: they are both dynamic by nature. Organizational learning is a dynamic process that adapts to changes in the environment based on the requirement for organizational growth, which is fueled by the creation of new or gradually enhanced competitive advantages. Environment turbulence is a dynamic measure of changeability, instability, and unpredictability that has a significant impact on an organization's strategic decisions. As a result, a description of the interaction between the two variables is necessary. The goal of organizational learning is to use data gathered from both the external and internal environments to the benefit of the business. Organizational learning is achieved through understanding, integrating, and institutionalizing this transference. Based on prior research by Ross Ashby (1957), [35] Ansoff refers to this process as contingency theory, which argues that "to properly manage the output of a system, the number of control mechanisms necessary will match to the number of constituents in that system."

Ansoff's logic serves as a basis for consciously responding

to changing surroundings in various scenarios based on the organization's capacity and plan, as well as what it has learnt.

At the most basic level, businesses must choose between concentrating their operations to service certain market segments or expanding their scope to serve many market groups as generalists. The influence of environmental instability on organizational learning will add a new dimension to the age-old argument over whether generalist or specialized techniques are more appealing. Regardless of how a company positions itself within an industry, it will undoubtedly need to pay attention to the relationship between changing surroundings and its capacity to learn.

Organizational learning methods that are well-designed and implemented are critical for determining the real amount of environmental turbulence. The company can only match its capabilities with their plan by analyzing and responding to a correctly evaluated scenario. As a result, in order to beat rivals, businesses will need to be more proactive in creating the "future by design," which will include more innovative strategic "thinking" rather than inflexible, traditional "planning" [36] [37].

Conflict of interest: The authors declare that there is no conflict regarding the publication of this paper.

References

- [1] Lopez, S. P., Peon, J. M., & Ordas, C. J. (2005). Human Resource Practices, Organizational Learning and Business Performance. *Human Resource Development International.*, **8(2)**, 147-164, 2005.
- [2] Morgan, R. E., & Turnell, C. R. (2003). Market-Based Organizational Learning and Market Performance Gains. *British Journal of Management.*, **14(3)**, 255-274, 2003.
- [3] Cassiman, B., & Veugelers, R. (2006). In Search of Complementarity in Innivation Strategy: Internal R&D and External Knowledge Acquisition. *Management Science.*, **(52)**, 68-82, 2006.
- [4] Ansoff, H. I., & McDonnell, E. (1990). *Implanting Strategic Management*. New Jersey: Prentice Hall, Englewood Cliffs.
- [5] Ansoff, H. I. (1972). Concept of General Management. *Journal of Business Policy.*, **2(4)**, 39-77, 1972.
- [6] Duncan, R. G. (1972). Characteristics of Organizational Environments and Perceived Environmental Uncertainty. *Administrative Science Quarterly.*, **17(2)**, 313-327, 1972.
- [7] Jauch, L. R., Osborn, R. N., & Glueck, W. F. (1980). Short term financial success in large business organizations: The environment-strategy

- connection. *Strategic Management Journal*, 1(1), 49-63.
- [8] Milliken, F. J. (1987). Three Types of Perceived Uncertainty about the Environment: State, Effect, and Response Uncertainty. *Academy of Management Review*., 12, 133-143, 1987.
- [9] Kohli, A., & Jaworskii, B. J. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, 54(2), pp. 1-18.
- [10] Ansoff, H. I. (1979). *Strategic Management*. London: Macmillan.
- [11] Thwaites, D., & Glaister, K. (1992). Strategic Responses to Environmental Turbulence. *International Journal of Bank Marketing*., 10(3), 33-40, 1992.
- [12] Huber, G. P. (1991). Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*, 2(1), pp. 88-115.
- [13] Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating Company*. Oxford: Oxford University Press.
- [14] Simon, H. A. (1991). Bounded Rationality and Organizational Learning. *Organization Science*., (2), 125-134, 1991.
- [15] Argyris, C., & Schon, D. A. (1996). *Organizational Learning II: Theory, Method, and Practice*. MA: Addison-Wesley.
- [16] Crossan, M. M., Lane, H. W., & White, R. E. (1999). An Organizational Learning Framework: From Intuition to Institution. *Academy of Management Review*., 24(3), 522-437, 1999.
- [17] Daft, R. L., & Weick, K. E. (1984). Toward A Model of Organizations as Interpretation Systems. *Academy of Management Review*., (9), 284-295, 1984.
- [18] Hedberg, B. (1981). How Organizations Learn and Unlearn. In P. C. Nystrom, & W. H. Starbuck (Eds.), *Handbook of Organizational Design* (pp. 3-27). NY: Oxford University Press.
- [20] Levinthal, D. A., & March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal*., (14), 95-112, 1993.
- [21] Jansen, J. J., Van den Bosch, F. A., & Volberda, H. W. (2006). Exploratory Innovation, Exploitative Innovation, and Performance: Effects of Organizational Antecedents and Environmental Moderators. *Management Science*., (52), 1661-1674.
- [22] Boyne, G. A., & Meier, K. J. (2009). Environmental Turbulence, Organizational Stability, and Public Service Performance. *Administration & Society*., 40(4), 799-824, 2009.
- [23] Hannan, M., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology*., 82, 929-964, 1977.
- [24] Ander, R., Ruiz-Aliseda, F., Zemsky, P. (2016). Specialist versus Generalist Positioning: Demand Heterogeneity, Technology Scalability and Endogenous Market Segmentation. *Strategy Science*., 1(3), 184-206, 2016.
- [25] Seely-Brown, I., & Duguid, P. (1991). Organizational Learning and Communities of Practice: Toward A Unified View of Working, Learning and Innovation. *Organization Science*., (2), 40-57.
- [26] Hanvanich, S., Sivakumar, K., & Hult, G. T. (2006). The Relationship of Learning and Memory with Organizational Performance: The Moderating Role of Turbulence. *Academy of Marketing Science*., 34(4), 600-612.
- [27] Freeman, C., & Perez, C. (1988). Structural Crises of Adjustment: Business Cycles and Investment Behavior. In G. Dorsi, *Technical Change and Economic Theory* (pp. 38-66). London: Pinter.
- [28] Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What Are They? *Strategic Management Journal*., 21(10/11), 1105-1121.
- [29] Srivastava, P., & Frankwick, G. L. (2011). Environment, Management Attitude, and Organizational Learning in Alliances. *Management Decision*., 49(1), 156-166, 2011.
- [30] Ansoff, H. I. & Sullivan, P. A. (1993). Optimizing Profitability in Turbulent Environments: A Formula for Strategic Success. *Long Range Planning*., 26(5), 11-23, 1993.
- [31] Pavitt, K. (1991). Key Characteristics of the Large Innovating Firm. *British Journal of Management*., 2, 41-50, 1991.
- [33] Dodgson, M. (1991). Technology Learning, Technology Strategy and Competitive Pressures. *British Journal of Management*., 2(3), 132-149, 1991.
- [34] Halebian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion. *Academy of management journal*, 36(4), 844-863.
- [35] Ashby, W. Ross (1957). *An Introduction to Cybernetics*, London: Chapman & Hall.
- [36] McKenna, S. D. (1999). Maps of Complexity and Organizational Learning. *Journal of Management Development*., 18(9), 772-793, 1999.
- [37] Stacey, R. (1996). *Complexity and Creativity in Organizations*. SF: Berrett-Koehler.