

TRIPLE-LOOP ORGANIZATIONAL LEARNING AND WORKERS' INNOVATIVE BEHAVIOUR: A RESPONSE MECHANISM FOR PANDEMIC INDUCED WORK DISRUPTIONS

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Abstract

This paper examined the relationship between the triple-loop organizational learning typology and worker's innovative behaviour in a pandemic induced work disruption. The paper is a conceptual review paper, with the three components of theoretical review, conceptual review and empirical review undertaken to arrive at a deductive proposition that with the right learning context of an organization represented by the triple-loop learning model, organizational members' innovative behaviour will be enhanced to boost organizational survival and success in the face of the disruption posed by the COVID-19 pandemic on work organizations.

Keywords: Organizational Learning, Learning Organization, Innovation, Innovative Work Behaviour, Single-loop Learning, Double-loop Learning, Triple-loop Learning

Introduction

The COVID-19 Pandemic has resulted in work disruptions for organizations globally. Many businesses have had to close shop or restructure their internal systems to cope with the instability created by changes in the macro environment and the international context of business. The world of work has since been redefined with the heightened use of technology, with many organizations needing to adjust or perish. How can organizations cope with the disruptions

brought about by the pandemic? This is one question that has received heightened research attention recently. With organizations grappling with how to reposition for the aftermath of the pandemic, one thing that has become clear however, is that workers' innovativeness is a *sine qua non* for organizational survival in the post pandemic era due to the demands of the new way of working. For, Agrawal, De Smet, Lacroix and Reich (2020) noted that the COVID 19 crises has forced companies to change the way they work overnight. The authors cited the forced switch to remote working, changing technologies resulting from heightened automation of organizational processes and the emergence of artificial intelligence as some of the issues that organizations have to adapt to if they must create value and remain relevant. For, only organizations that create value that meet the needs of the time will survive. Lin & Lee (2017) argued that workers play a significant role in value creation for work organizations. One notable way by which organizational members create value is through innovation, which according to (Lin & Lee, 2017: 2464) "is a critical factor to the long-term sustainability and success of an organization".

In the light of the COVID-19 pandemic and its disruptive effect, there is a greater need to boost the innovative capabilities of organizations to meet the new demands of the post pandemic era. Agrawal *et al* (2020) thus argued that the appropriate leadership response would be to

reskill and upskill the workforce in order to ensure the delivery of new business models in the post-pandemic era. The level of organizational innovation has however been shown to be a function of workers' innovative behaviour. As argued by Purc and Lagun (2019), "employees are the individuals who create and implement innovative solutions in organizations; therefore, their behaviors are critical to organizational innovation". The importance of workers' innovative behaviour has therefore been well articulated thus leading to heightened research interest in identifying its antecedents in organizations. According to Kundu, Kumar, and Lata (:2020: 458) "studies have explored the relationship of various factors with IWB (Innovative Work Behaviour), such as innovative climate, open and supportive environment, psychological empowerment, inclusive leadership, perceived organizational support, job autonomy, transformational leadership and job complexity".

However, one key precursor to workers' innovative behavior identified in literature, which needs conceptual clarification, is organizational learning. Senge (1990), according to (Lin & Lee, 2017: 2464) had argued that "it is beneficial of organizational innovations if an organization is equipped with a learning culture". Corroborating this position, Tamayo, Gutiérrez, Lloréns and Martínez (2016: 1150) stated that "an organization that wishes to create a climate favorable for innovation should encourage learning among its members". But what constitutes and learning culture and what is the difference between individual learning and organizational learning? With three typologies of learning identified in organizational learning literature (single-loop learning, double-loop learning and triple-loop learning as given by Argyris and Schon, 1978), it is important to identify which of the typologies is most suitable for a disrupted work environment that is replete with uncertainty. This paper therefore reviews extant literature to clarify the concepts of learning in work organizations and determine the appropriate typology of learning that will enhance workers' innovative behaviour in a disruptive work environment. This is with a view to providing a deductive proposition for further empirical research as well as tooling organizational leaders with a strategic choice for responding to the challenge of the COVID-19

pandemic and its disruptive effect on work organizations.

Methodological Clarification

The paper is a conceptual review paper, with the three components of theoretical review, conceptual review and empirical review undertaken to arrive at a deductive proposition. According to Hulland (2020), a conceptual review research papers provide key insights, and propose agendas for future research. Thus this paper, by generating a deductive proposition, serves as a necessary first step in the formulation of an empirical study.

Literature Review

Theoretical Foundation

This study addresses the pandemic induced disruptions from a behavioural perspective. Consequently, the underlying baseline theory guiding this study is the behavioural learning theory, which forms the basis for organizational members' behaviour including their innovative behaviour. The study of how people learn has fascinated mankind from the ancient Greeks to the present (Cole 2002). However, the difficulty of a universally acceptable definition of learning persists. For, as Cole (2002) posits it is not easy to find a definition of learning that satisfies everyone. This is because the concept of learning is understood from various perspectives and has a long evolutionary history (Wang and Ahmed 2002). This notwithstanding, scholars (Maier Prange and Rosenstiel 2001, Wang and Ahmed 2002, Mullins 1996, Rollinson, Broadfield & Edwards, 1998) subscribe to the view that theories of learning have their roots in the history of psychology and have become an important issue in understanding human behaviour.

Learning is normally defined in Thompson and McHugh's (1995) view as a relatively persistent change in an individual's possible behaviour, and this according to them is due to experience. Experience in this context as Maier *et al* (2001) points out is not the same as maturity. They argue that maturation involves genetically determined growth of the nervous system and this happens beyond the individual's cognitive frame. As Thompson and McHugh (1995) reiterate, cognitive models are usually given as the main explanation of the learning process. This definitions of learning emphasizes the change that occurs in behaviour when learning has taken place. However, Maier *et al* (2001) is succinct in

pointing out that not every kind of behavioral change can be regarded as learning. Consequently, the position of Jones *et al* (2000) is instructive that when learning occurs it is evident in a relatively permanent change in behaviour. This view is shared by Ivancevich, Lorenzi, Skinner and Crosby (1997) that define learning as the act by which individuals acquire skills, knowledge, and abilities that result in a relatively permanent change in their behaviour. Thus learning could only have occurred where the change in behaviour experienced is of an enduring and persistent nature (Mullins 1996). The key issue according to Rollinson *et al* (1998) is whether behaviour has changed in a relatively permanent way and this informs Maier *et al* (2001) submission that all forms of temporary behavioral change are excluded.

The current understanding of learning has evolved over several centuries of human existence. Over the years, several theories of learning have emerged to give understanding to the subject. These theories explain the different forms of learning and describe how people learn in general. These theories, which have largely been developed from the experimentation of early psychologists in the development of laws of learning (Mullins 1996), include: (1) behaviorism (notably classical and operant conditioning), (2) cognitive theory, (3) social learning theory, and (4) gestalt theory. For this current study however, the behavioral theory forms the underlying theoretical basis of the review.

Behaviorism

The greatest contribution to modern ideas about learning has, according to Cole (2002), been provided by the outcomes of the experiments of the 'behaving people' around the early twentieth century. Wang and Ahmed (2002) explain that the behavioural theory is an overall guideline to understand principles by which human behaviour is learned and maintained. Mullins (1996) adds that as the name implies, measurable and controllable behaviour rather than ideas and thoughts was the focus of interest. Behavioural learning theory predicts an individual's behavioural outcomes by analyzing environmental influences which includes both antecedents and consequences (Haleblian & Finkelstien 1999). The prominent behavioural theories of learning are:

Classical Conditioning: The main contribution of classical conditioning theory as championed by Pavlov (1927) is the connection between stimulus and response. Through the pairing of an unconditioned stimulus and a conditioned stimulus, Pavlov discovered that a conditioned response is elicited. Classical conditioning theory according to Rollinson *et al* (1998) can be important in understanding reflexes and passive learning. This position is also held by Wang and Ahmed (2002) who opined that classical conditioning represents reflexive behaviour.

Operant Conditioning: A second behavioural theory of learning is the Operant Conditioning which resulted from the experiments of Thorndike and later of Skinner (Thompson and McHugh 1995, Maier *et al* 2001, Cole 2002). This form of learning, which is sometimes referred to as instrumental conditioning (Maier *et al* 2001) is premised on what Thorndike refers to as the 'law of effect' in which he concludes that when a response is followed by a reward, or feeling of satisfaction, that response is more likely to be repeated in similar circumstances (Cole 2002). Here focus is shifted from the stimulus as in the case of classical conditioning, to the consequences that follow behaviour (Thompson and McHugh 1995). Consequently, Jones *et al* (2000) affirms that according to operant conditioning theory, people learn to perform behaviours that lead to desired consequences and learn not to perform behaviours that lead to undesired consequences. The important role of the environment in defining and maintaining behaviour is made explicit in this case and over the years, the subject of behaviour reinforcement as a major tool for creating goal directed behaviour within the organization has been built around these ideas. Skinner, is attributed with the development of 'programmed learning' (Cole 2002) as a result of his introduction of the concept of reinforcement.

Turi, Sorooshian, Muhmad and Javed (2018) admits that there are cognitive behavioural and social aspects of organizational learning. But the choice of the behavioural aspect of learning for this study is found in the author's description of the behavioural aspect of organizational learning, which they argue, "rests on the assumption that learning is the acquisition of new behavior based on environmental conditions, organizational demands and strategies and the consequences of previous behavior, which ultimately, directly and

indirectly improve their performance” (Turi, Sorooshian, Muhmad and Javed, 2018: 183). With the demands of the pandemic disruptive environment, behavioural learning thus best underlies our learning takes place in the work organization. There is however the need to clarify the concept of organizational learning.

Organizational Learning and the Learning Organization

Do organizations learn? This is a question that has generated lots of research interest in organizational studies over the years. The widely held response to this question is that learning within organizations is a multi-level construct (Crossan 1999) with learning taking place at the individual and organization levels (Pemberton and Stonehouse 2000). Consequently, Holmqvist (1993: 3) highlights Weick and Westley’s (1996) postulation that, “learning is not an inherent property of an individual or of an organization, but rather resides in the quality and nature of the relationship between levels of consciousness within the individual, between individuals, and between the organization and the environment”.

This idea links the individual world of the worker with the world of the organization (Smith 2001). Extending the debate, Wang and Ahmed (2002) however advocate that distinction between the organization and individual levels of organizational learning be made explicit to avoid an organizational learning model that obscures the actual learning process by ignoring the role of the individual or become a simplistic extension of individual learning by glossing over organizational complexities. In this regard, several scholars have attempted to explicate the concept of organizational learning and the learning organization, even though Stewart (1996) argued that the concept of the learning organization is not easy to define or describe.

The origin of organizational learning can be traced back to the 1920’s although it was not till the 1980’s that serious consideration was given to it (Lee 1999; Hughes 2000; Wang and Ahmed 2002). The variegated nature of the concept has made its understanding difficult and Griggs and Hyland (2002) say this is evident in the light of the work of Argyris and Schon (1978) that identified six different ways of understanding the concept, each based on a different field of study. This view is corroborated by Magalhaes (1996) who stated that there are many different ways of

approaching the concept of learning organization depending on the particular academic or intellectual leaning of the reviewer. According to Antal, Dierkes, Child & Nonaka (2001), it is symptomatic of the dynamics of the development of the field that there is no agreement of the definition of organizational learning. In large part, convergence in organizational learning frameworks has therefore not occurred because of the different applications of the concept in different domains (Crossan 1999).

Another conceptual difficulty identified in literature is the difference between organizational learning and learning organization. To however make any conceptual distinctions between the two terms may not be necessary for this current study in line with the views of Gherardi (1999: 5) that “it would be naïve to create and represent a distinction between a heuristic organizational learning and a realistic learning organization, when both converge in the same social practice which legitimizes the managerial techniques based on their claims of scientific knowledge. They share the same bias and both contribute to the institutionalization of the field as a disciplinary discourse and to its overcoming through that process of constant reinterpretation of previous interpretation that is called institutional reflexivity”.

This review therefore explicates the concept of organizational learning drawing from the literature on the learning organization.

Pedler *et al* (1988, 1989, 1991) defines a learning organization as “one which facilitates the learning of all its members, and which continuously transforms itself” (Stewart 1996: 78; Armstrong 2000: 225; Hughes 2000: 4; Othman and Hashim 2003: 3). Similarly, Senge (1990: 14) posits that it is one that is “continuously expanding its capacity to create its future”. The relevance of individual learning to organizational learning is made explicit in this definition. In this instance however it is the organization that champions the learning process by creating avenues for organizational members to improve their knowledge base which helps them accelerate organizational growth. The broad premise of this movement according to Buchanan (2000) is that an organization which lacks the capabilities for acquiring and utilizing existing knowledge, and for sourcing fresh insights, is likely to face extinction in the competitive economy. Consequently, the learning

organization creates a clear vision about the future and through a coherent action plan of steady transformation, moves towards the envisioned business position. In this regard, organizational learning is conceived of as a principal means of achieving the strategic renewal of the organization (Crossan 1999). This is confirmed by Wheelen and Hunger's (2004) argument that strategic flexibility demands a long-term commitment to the development and nurturing of critical resources and consequently, a learning organization.

Senge (1990: 3) gave a more comprehensive definition of the learning organization in which he stated that "it is one where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people continually learn to learn together".

This definition is in consonance with our earlier submission that knowledge acquisition and utilization is a very important aspect of organizational learning. For, organizational learning is a process that provides organizational knowledge (Farr, 2000). Fisher and White (2000) argues that Learning organizations engage in knowledge accumulation by gathering information from both internal and external sources. This forms the major knowledge stock of the organization which facilitates the development of what Armstrong (2000) refers to as 'innovative climate'. The focus is not exclusively on acquiring new knowledge but rather on arriving at more fundamental shifts in organizational paradigms that encourage the evolution of learning capacity (Davies and Nutley, 2000).

Accordingly, organizational learning, as posited by Lee (1999: 2), "builds on a firm's memory, which depends on such institutional mechanisms as policies and strategies" and as Griggs and Hyland (2002: 5) state, organizational learning "is the integration of learning into appropriate organizational systems, structures, routines and culture". In a sense, the ability of the workforce to learn faster than those in competing organizations is the major cutting edge and constitutes the prime competitive advantage available to the organization (Wang and Ahmed 2002) as this creates a breeding ground for workers innovative behaviour. Every learning organization is thus positioned to engender an

atmosphere that allows for greater levels of innovativeness, which is measured by idea creation and implementation. But there are different typologies of organizational learning with varying implications for innovation.

Typologies of Organizational Learning

Argyris and Schon (1978) identified a three-fold typology of learning, which include the single-loop learning, double-loop learning, and the deutero-learning (Eskildsen *et al*, 1999; Hughes, 2000; Griggs and Hyland, 2002). According to Skhiri (2017:1), these three levels of organizational learning "correspond to degrees of change, commitment, and questioning".

Single-Loop Learning:The first form of learning in Argyris and Schon (1978) typology is the single-loop learning which according to Lee (1999) entails incremental change within an existing framework. Corroborating this view Antal *et al* (2001) state that single-loop learning means incremental improvements in existing ways of doing things. This is a kind of response by organizations to a gap between actual practice and established standards also referred to as 'theory-in-use' (Smith 2001). Because single-loop learning decisions are based solely on observation, no renewal takes place since the goal is to optimize an already established competence or method (Eskildsen *et al* 1999). This type of learning takes place within a given frame of reference (Stewart 1996) and involves the minimum disruptions to the structures of the organization as it only involves a change of collective action within the existing norms, values and structures (Tainio *et al* 2001). According to the submission of Griggs and Hyland (2002), it leads to the refinement of the prevailing mental model and to the modification of the rule that regulate behaviour but not the underlying principle within the organization. This therefore is concerned merely with the detection and correction of error in behavioural strategies (Friedman *et al* 2001) via a feedback loop and as posited by Pemberton and Stonehouse (2000), is only necessary for organizational survival but does not deliver competitive advantage. It is subsequently described as survival learning (Hughes 2000). Othman and Hashim (2003) are of the opinion that most organizations tend to do well with single-loop learning as it helps them to maintain the status quo. Such organizations according to Armstrong (2000) define the governing variables which are the set standards

and targets that they intend to achieve, then monitor and review achievements and take corrective action as necessary. Simply put, these organizations solve problems by doing things differently but not by doing different things (Antal and Krebsbach-Gnath 2001). Because of its simplistic nature Shiri (2007) refers to this level of learning as simple learning, and argues that “the simple loop learning process results in companies being able to learn without completely changing their framework of action or their creative ideas”. This level of learning does not therefore suit a turbulent business environment that comes with frequent changes and so demand creativity. This calls for a second level learning typology.

Double-Loop Learning: In contrast to the single-loop learning, the double-loop learning, which is the second typology of learning attributed to the works of Argyris and Schon (1978) involves reflexivity, which Antal *et al* (2001) explain as the questioning of what is being done which leads to learning of new behaviours rather than the refining of current skills. In the case of double-loop learning as against single-loop learning, organizations correct errors not just in the behavioural strategies but primarily in their underlying values, objectives, and standards for performance as the organization’s theory-in-use is ‘brought to the surface, openly tested and restructured’ (Friedman *et al* 2001: 758). Rather than merely doing things differently, double-loop learning entails doing new things (Antal and Krebsbach-Gnath 2001) because here decisions are based on rethinking of existing competencies and methods which have proved inadequate and existing knowledge is challenged (Eskildsen *et al* 1999). This is not a simple process as it involves a complex set of activities that challenge accepted orthodoxies and strategies (Allan 1998). For, as Tanio *et al* (2001: 430) argue, the process entails ‘a critical inquiry into and changing of the underlying interpretative mechanisms, goals, and assumptions’. In other words, the process involves the initiation of action to redefine the governing variables of the organization (Armstrong 2000) by questioning, challenging and changing the organizations frame of reference (Stewart 1996) in a bid to meeting new challenges. For the individual staff members, Ikehara (1999) posits that the process would require their going out of the framework of their meaning making and coming up with new ways of addressing identified problems or issues which

Lee (1999 p.1) describes as ‘transformative change’. This kind of radical change arising from the interrogation of the governing variables is often ignored by many organizations but is a prerequisite for making informed decisions in rapidly changing and uncertain contexts (Smith 2001). For, as argued by Skhiri (2017:2), “the double-loop learning process takes place when the organization decides to question its strategic goals as well as its organizational framework of action” and there is no better time to do so than a period of uncertainty. But a higher level of learning is yet attainable.

Triple-loop Learning: Argyris and Schon (1978) identified a third typology of learning known as deuteron-learning, which is otherwise simply referred to as ‘learning how to learn’ by Child (2001: 664); Griggs and Hyland (2002: 6), triple-loop learning by Eskildsen *et al* (1999: 525) and meta-learning by Davies and Nutley (2000: 2). Justifying its application in a hypercompetitive environment, Pemberton and Stonehouse (2000) argue that organizations must operate beyond the levels of single- and double-loop learning and move to the level of learning how to learn. In this way, they argue further, organizations create a context that both nurtures emerging knowledge and exploits existing ones. This they affirm is an organization paradigm shift in which organizational members learn how to reflect on and enquire into previous events of organizational learning or failure to learn (Ikehara 1999). In a similar vein an explicit explanation of deuteron-learning is given by Othman and Hashim (2003) who iterates, involves learning about previous contexts of learning and seeking understanding to past ability or inability which results in new strategies for learning. This learning level is required when the existing knowledge is no longer adequate in order to reach the objectives (Eskildsen *et al* 1999). Consequently, Eskildsen *et al* (1999) iterates that this learning level becomes a strategic option in the face of a need for a complete change and renewal, which requires the individual to reflect on its mental models and consequently learn to learn new things. Accordingly, by Georges, Romme and van Witteloostuijn (1999: 440) argue that “Triple loop learning manifests itself in the form of ‘collective mindfulness’: members discover how they and their predecessors have facilitated or inhibited learning, and produce new structures and strategies for learning”.

This type of learning is not so much in practice in most organization although the reason is not farfetched. Antal *et al* (2001) affirm that it is obviously a higher level of reflexivity and very little research has been done on it. Very instructively, Skhiri (2017:2) noted that “the triple loop learning process is based not only on a change in the organization’s principles and values, but also on a profound transformation of the organizational action framework”. This is what is most required in a time of turbulence and work disruptions to raise the competence of organizational members to not only cope but excel.

A succinct summary of these three levels of learning as giving by Georges *et al* (1999: 439) provides a solid basis for understanding their application:

Single loop learning refers to making simple adaptations and taking corrective actions, whereas double loop learning involves reframing, that is, learning to see things in totally new ways. Finally, triple loop learning entails members developing new processes or methodologies for arriving at such re-framings.

The transition from single-loop to triple-loop learning is viewed in this study as a necessary course of action for enhancing workers’ innovative behaviour. But what is innovative behaviour?

Workers' Innovative Behaviour

The concept of workers innovative behaviour stems from literature on innovation. Innovation is a complex and multifaceted concept (Kogabayev and Maziliauskas, 2017), which is considered to be of great significance to organizational success and survival (Akram, Lei and Haider, 2016). Ottosson (2013: 9) traces the meaning of the term “innovation” to the Latin word “novus”, which translated, means new or young or novel and consequently defined innovation “as the process by which an idea, a research result or an invention is translated into new goods and/or services that have been taken in use”. Nasierowski and Arcelus (2021: 64) thus consider innovation as “novelty applied to something, which already exists”. This line of argument is also captured in the definition given by the Organization for Economic Cooperation and Development (OECD), which according to Kotsemir, Abroskin and Dirk (2013:

4) defines innovation as “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations [OECD, 2005: 46]”. Schumpeter (1934) is widely acknowledged to have classified innovation into five distinct areas such as product innovation, process innovation, organizational innovation, input innovation and market innovation (Sledzik, 2013). In addition to these five, Ottosson (2013) identified others additions made in literature. These include radical or basic innovation, application innovation, experiential innovation, business model innovation, structural innovation, and public sector innovation.

The importance of innovation has been well established in literature. According to Kamaruddeen, Yusof and Said (2010: 67), “innovation gives the organization the ability to adapt and evolve to meet the changing market conditions and customer demands”. The authors went on to acknowledge that innovation, which involves people, process and product is at the center of organizations’ productivity and success. Innovativeness thus represents the level of support for new and creative ideas (Okpara, 2007). This is promoted by the level of experimentation and according to Bateman and Snell (1999: 260), “it requires a willingness to depart from existing practices and venture beyond the status quo”. Consequently, Kamaruddeen, Yusof and Said (2010: 72) are of the view that “a firm’s tendency to engage in and support new ideas, novelty, experimentation and creative processes that may result in new products, services, or technological processes is explained by the firm’s innovativeness”.

Nedkovski and Guerci (2015: 5), drawing from the line of argument in the innovation literature to clarify the context for individual innovative behaviour as the vehicle for the organization’s innovativeness argued that:

“in order (for) a particular organization to be innovative, it is necessary that it is capable of harnessing the ideas from their employees, because it is the people who “...develop, carry, react to, and modify ideas” (Van de Ven, 1986: 592). Consequently, studying what enables or impedes creativity and innovation of people at

work is of a critical importance (Yuan & Woodman, 2010).

Accordingly, Lumpkin and Dess's (1996) cited in Kamaruddeen, Yusof and Said (2010: 72) state that "perception of innovativeness includes both behavior-related and product-related concepts", and that "the firm's innovativeness starts with a desire to try something new, to an actual commitment to master the latest in new products or technological advances". This is the foundation of employees' innovative work behaviour, which is premised on the behaviour-related perception of innovativeness.

West and Farr (1990) cited in Acram *et al* (2016: 155) defined innovative work behavior as "all employee behavior directed at the generation, introduction and/ or application (within a role, group or organization) of ideas, processes, products or procedures, new to the relevant unit of adoption that supposedly significantly benefit the relevant unit of adoption". Samma, Zhao, Rasoo, Han, and Ali, S. (2020) gave a succinct explanation of innovative work behaviour as follows:

A behavioral series that allows employees to think in a creative way for optimization of work performance and its procedure and routines is known as innovative work behavior. These behavioral manifestations usually involve the identification of work-related problems, the introduction of innovative and better ideas, and the implementation of those ideas, etc.

What then is the association between organizational learning and Innovative work behaviour?

Learning Typologies and Innovative Work Behaviour

Tamayo *et al* (2016) carried out an empirical study titled, "Organizational Learning and Innovation as sources of Strategic Fit". With a sample of 204 respondents drawn from European firms that are active in high-technology sectors, the study applied the structural equation modelling statistical technique. The study found that organizational learning is an antecedent of innovation in both the phases of innovativeness and capacity to innovate. This outcome, the authors argued, is in tandem with what is empirically established in extant literature, to the

end that "firms can easily innovate in dynamic environments if they develop a capability to efficiently learn from their resources, which in turn increases their competences and capabilities" (Tamayo *et al*, 2016: 1150). The authors thus concluded that organizational learning "increases receptivity to new ideas and innovation as part of an organization's innovation culture" (Tamayo *et al*, 2016: 1150).

The learning context of the organization is typified by the state of organizational learning. Pedler *et al* (1991) defines a learning organization as "one which facilitates the learning of all its members, and which continuously transforms itself" (Armstrong 2000: 225; Hughes 2000: 4; Othman and Hashim 2003: 3). This orientation of continuous transformation is the appropriate organizational atmosphere for innovation to thrive. For, as advanced by Senge (1990: 3) in the learning organization "people continually expand their capacity to create the results they truly desire", new and expansive patterns of thinking are nurtured", and "collective aspiration is set free".

The broad premise of the learning organization, according to Buchanan (2000), is that an organization which lacks the capabilities for acquiring and utilizing existing knowledge, and for sourcing fresh insights, is likely to face extinction in the competitive economy. This is tantamount to saying that an organization that does innovate is heading towards extinction and this suggests that at the heart of organizational learning in organizational innovativeness. Consequently, the learning organization creates a clear vision about the future and through a coherent action plan of steady transformation, moves towards the envisioned business position. In this regard, organizational learning is conceived of as a principal means of achieving the strategic renewal of the organization (Crossan 1999), which is represented by innovativeness. Cole (2002) identified that organizational learning addresses the need for greater collaboration in problem/opportunity perception and its solution/exploitation. The resultant effect of such collaborative effort is not only to solve immediate identifiable problems, but to position the organization to face future needs.

Consequently, every individual member of the organization is required to engage in healthy exchanges that create new and alternative ways of

undertaking their jobs and committing themselves to working together to achieve results more effectively. This orientation to work is encapsulated in the philosophy of the learning organization and Cole (2002: 326) iterates that it "is to enhance the achievement of collective goals by harnessing the reservoir of knowledge, skills and insights of all members of the organization". This again underscores the attribute of idea utilization that is a measure of workers' innovative behaviour.

Therefore, Smith (2001) and Kinjerski and Skrypnek (2006) argue that one of the ways organizations create conditions for spirit at work is through the provision of opportunities for continuous learning. For, as posited by Rego *et al* (2006: 9) "employees tend to be more affectively and normatively committed, and less instrumentally bonded to their organization, if they feel that ...opportunities to learning and personal development exist..." This will increase the propensity of the organization to enhance organizational members' innovative behaviour. For, as argued by Daft (2001:25), the learning organization, which is a function of organizational learning, enables "the organization to continuously experiment, improve, and increase its capability".

An Argument for Triple-Loop Learning in a Time of Work Disruption

It has been shown that not all the typologies of learning are relevant in all situations. Johannessen, Swartling, Wamsler, Andersson, Arran, Vivas, and Stenström (2019: 2) for instance argued that "lthough single- and double-loop learning only plays an indirect role in transformation, triple-loop learning is directly related to it, as it involves changes to existing governance structures and shifts in norms and values. Hummelbrunner (2015: 21) stated pointedly that single-loop learning "approach is rather ineffective (and even counterproductive) in situations of diversity and dynamics". Of the three typologies of organizational learning, the triple-loop typology seems to be the most suitable to address a situation of profound change like the one necessitated by the pandemic induced work disruptions. Comparing the single-loop, double-loop and triple-loop learning typologies and their implications for profound change and radical innovation, Pefchi (2007: 137-138) averred that "several limitations of single-loop learning have been discussed. The most crucial problem has

turned out to be the limitation that this strategy of learning does not allow for the construction of para-digmatically new knowledge and radical innovation ... Double-loop learning is focused mainly on the intellectual and cognitive domain and its dynamics. However, if one is interested in profound change a new level, implying a new dynamics, has to be introduced; profound change does not only happen in the cognitive domains, but touches a more fundamental level – an existential level that includes the person and his/her attitudes, values, habitus, etc".

This study therefore proposes that with the right learning context of an organization represented by the triple-loop learning model, organizational members' innovative behaviour will be enhanced to boost organizational survival and success in the face of the disruption posed by the COVID-19 pandemic on work organizations.

Conclusion

The COVID-19 pandemic has no doubt created turbulence for organizations globally. More than ever before, the world of work requires highly innovative staff members. It is therefore expected that organizations provide the platform for their people to generate and utilize novel ideas in meeting with the challenging situation brought about by the COVID-19 pandemic. With advancements in information and telecommunication technology (ICT), organizations are better positioned to respond to the new ways of working as defined by the pandemic if workers' innovative behaviour is enhanced. Training, coaching and mentoring as part of organizational learning programmes will increase the innovative levels of the individuals, which when put to use results in novel solutions. But Daft (2001) made a strong case for the learning organization model, which will require a shift from a vertical to a horizontal structure, routine tasks to empowered roles, formal system to shared information, competitive strategy to collaborative strategy, and rigid culture to adaptive culture, as suitable for turbulent business environments. This can best be achieved by the application of the triple-loop learning model as against the single-loop and double-loop model.

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