
A Systematic Review of Literature on Organizational Unlearning and Forgetting

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Abstract: Purpose – Unlearning has been one of the interesting and debatable construct emerged in studies of organizational behaviour. Discussion on this phenomenon precedes from interdisciplinary realms ranging from psychology to pedagogy approaching towards arena of business studies. Studies often question the applicability of its existence and practical applications. Starting from the base of unlearning this paper attempts to enfold the multi-foci perspectives associated with unlearning. Aiming to analyse the construct, this paper provides an insight to definitional notions, account of existing stream of work, its unit of analysis at individual and organizational level and finally discussion of routines structured on unlearning perspective.

Design/methodology/approach – A systematic analysis and review is proposed in order to study streams of literature existing on phenomenon existing on unlearning. This systematic review will help in stating various definitional notions of unlearning, identifying the theoretical lenses applied, processes underlying the unlearning mechanism and extent of quantitative and qualitative studies carried out.

Originality/value – As the study is conceptual in its nature, therefore it aims to contribute towards identifying and enhancing the literature of unlearning by identifying gaps and future avenues. Enlightening the applicability of unlearning in multiple sectors it enhances its dimensionality.

Practical implications – Study can be helpful for managers and organizations, as unlearning is rooting from change management, which would provide new revelations for organization as useful tools. Review provides insights to areas which can be useful for future studies.

Keywords: Change, Organizational unlearning, Organizational forgetting, Routines, Organizational knowledge

INTRODUCTION

Within a knowledge-based economy, an important strategic input is the use of knowledge for creation of knowledge for products and services (Seddighi, 2015). Thus, organizations go for more and more knowledge input by upgrading its systems, policies and practices through change. Change, a dynamic and evolving practice enfolding in itself multi-layered processes and practices (Senge, 2016). Studies in organizational behavior provide numerous cases where change has been quoted as turning point for organization's survival (Pettigrew, Woodman, & Cameron, 2001; Van de Ven & Poole, 1995). Still, cases have been reported regarding failure of change implementation (Yazeen & Okour, 2012) (Yaseen & Okour, 2012). According to Eisenhardt and Brown (1998), among the challenges faced by organization the hardest one is to change the established "mental models" underlying its corporation.

Among the various reasons of change failure in organizations, one most important is its people, inclined to resist change and preferring to maintain the status quo and identity loss (Ford, Ford, & D'Amelio, 2008; Snihur, Örténblad, & Örténblad, 2018). Organizations do need to analyze and incorporate the essence of "Letting go" (M. Fiol & E. O'Connor, 2017) of traditional beliefs and values which acts as source of resistance for learning and change. Perspective of letting go or getting rid of traditional beliefs and values causing resistance is what has been claimed as unlearning or forgetting. Both the terms have been used interchangeably in literature (Azmi, 2008; Hill & Cromartie, 2004).

According to Walsh and Ungson (1991), unlearning has made claim as the "heart" of change processes of an organization. In establishing linkage between change and unlearning, the governing viewpoint identifies later as "facilitator" and "central mechanism for change" (Becker, Hyland, & Acutt, 2006; Martin de Holan, 2011a; Tsang, 2008; Tsang & Zahra, 2008). Despite of its complementary nature for various organizational processes, broken and fragmented traces of unlearning existed (Akgün, Byrne, Lynn, & Keskin, 2007b; Martin de Holan, 2011b). Researchers identifying this gap, attempted to provide unlearning with evident conceptual as well as empirical groundings, assessing its practicality through creating customer capital (J. Cegarra-Navarro & Sanchez-

Polo, 2008; Stace & Bhalla, 2008), knowledge exploration and exploitation in SME's (Gabriel Cegarra-Navarro, Sánchez-Vidal, & Cegarra-Leiva, 2011), with quality of service in healthcare units (J.-G. Cegarra-Navarro & Cepeda Carrión, 2013; Gutiérrez, Navarro, Carrión, & Rodríguez, 2015) and multiple sectors of business.

Studies established the fact how unlearning stands out as a phenomenon of its own, a concept of discrete nature rather than a subsumable process of learning (Brook, Pedler, Abbott, & Burgoyne, 2015). Positive notion of organizational forgetting derive from the fact that it provides a filtration mechanism i.e. to isolate the everyday communication which might not add to knowledge contribution of the firms (Bannon, 2006; Bowker, 1997). Unlearning is considered as one of the key contributors of socio-cognitive setup of organizational learning along with information improvisation, information dissemination (Huysman, 2000; Akgün, and Byrne, 2003).

Advent of disruptive innovation raises the need to overcome pre-established mental maps and obsolete models, a critical task which requires and sets stage for unlearning process to intervene (Assink, 2006; Mariano & Casey, 2015). With changing environment, organization induces itself in double-loop learning in similar fashion unlearning aids organization in getting rid of obsolete beliefs and knowledge structures based on the environmental feedback, therefore unlearning can be claimed as playing "interlocking role" between change and learning processes (Akgün et al., 2007b). Unlearning and learning initiatives both are essential for successful change and strategy route (Moon, Ruona, & Valentine, 2017; Rupčić, 2017).

Setting its stage in early twenties, studies evaluated the role of unlearning or forgetting plays at individual or organizational level (Cegarra Navarro, Wensley, & Polo, 2017) and whether the process occurring is conscious or unconscious act (Rigg, 2016). Based on evidences, it can be claimed that unlearning occupies similar importance as of learning, and "to learn firms must first unlearn" (Starbuck, 2017).

Journey of unlearning or forgetting provides an interesting area to study, how emergence of unlearning spring outs in organizational studies, possible pathways it passed and further new avenues left out to attain. Therefore, systematic review is proposed to consolidate, summarize and explore the studies in realm of unlearning along with possible new stone miles left-out to be achieved. This systematic reviews aims to:

- i. Evaluate the relationship and inter-changeable nature between organizational forgetting and unlearning.
- ii. Provide a consolidated perspective of theoretical underpinnings and groundings for organizational unlearning, pertaining to mechanism and ways the process can be linked with conceptual and empirical studies.
- iii. To answer the unwarranted notion of unlearning through its application in terms of a quantitative and qualitative phenomenon.

This paper proceeds in various sections where section I provides details regarding the search strategy adopted for this paper. Section II highlights theoretical understandings about unlearning enfolding discussion respect to its origin, theoretical lenses available, and its quantitative or qualitative nature. Finally, section III with limitations, future directions and conclusions.

Section I: Search String

The review process was conducted by searching in eight databases, Emerald insight, Sage publications, Jstor, Taylor and Francis, Springer link, Wiley, Science Direct and Informs from the time period of 1980-2018. In a general search, the term unlearning yielded huge number of content, therefore search was restricted through key terms by screening the areas of: key words, title and abstracts. Results were stored in separate folders for each database.

Initial search yielded out 926 entries, from which papers were classified in the categories of research papers, conceptual paper, viewpoints, chapters, and non-relevant articles and case studies resulting in 188 entries. The Inclusion criteria for this review paper was set for research (quantitative and qualitative) and conceptual papers which resulted in 132 entries, these were further exported to Endnotes for identifying duplicate entries and econometric papers, which ended up with final 77 articles. Figure 1, provides the diagrammatical representation of search strategy applied for the study.

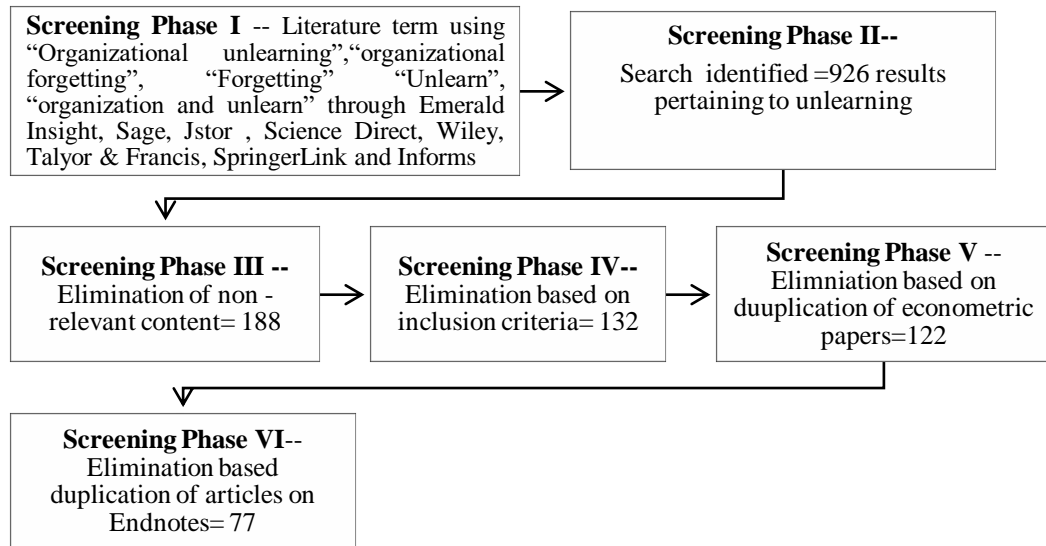


Fig.1: Search Strategy for Systematic Review

Section II: Theoretical Understandings about Unlearning

Origin:

Unlearn has been regarded as a concept coming to screen with Hedberg(1981) seminal work, however it is rooted back from 1930’s in Dewey’s (1928) Education and experience. Introduction of unlearning in the management studies came through the work of a psychologist Lewin in 1951 through the change model. Short(1981), description of unlearning states knowing the known is easier and to know something new one has to unlearn first.

Unlearning has been occupying its position in studies evolving time to time with various notions. Bettis and Prahalad (Bettis & Prahalad, 1995; Prahalad & Bettis, 1986) provides discussion about dominant logic of organizations in the form of mental maps, structures and systems which are hard for organizations to unlearn especially if they are successful. Only crisis has been identified as critical source for organizations to shift their dominant logic, whereas unlearning can be an important way to uproot the dominant logic being followed in an organization.

Basing its constituents in dynamics of organizational knowledge (Holan & Phillips, 2004), questions have been raised regarding knowledge storage and disposal, how and where it is ported and how unlearning provides a way to deal with it. In addition to this, the stream of unlearning was further explored based upon components of “changes in beliefs and routines”(Akgün et al., 2007b). According to Akgün et al., (2007), unlearning is not only a mechanism which involves change of beliefs rather a tool which shapes the cognitive patterns for achieving anticipated knowledge and competitive outcomes. Learning cycles and forgetting overlapping proves to provide fruitful lens for establishing organizational routine (Mariano & Casey, 2016). Similar results yield from study of (Aydin & Gormus, 2015), addressing how forgetting and coaching techniques provide pathway for organizational survival.

With evolution of unlearning, advent of new evidences have led to believe that there are still unseen aspects of unlearning. Studies do provide grounding for exploring underlying mechanism and interrelated organizational aspects which can guide the process of unlearning such as through dysfunctional of old routines, constituents related to organizational and institutional context for example leadership, power, etc.(C. M. Fiol & E. J. O’Connor, 2017).

Mystification of Organizational Forgetting and Organizational Unlearning:

Literature has often used organizational forgetting and organizational unlearning as inter-changeable terms, (Benkard, 2000; Holan et al., 2004), thus mystifying both aspects. A cautious perusal however helps to identify that how these two concepts are nearly alike with a subtle difference(Akhshik, 2014; Azmi, 2008; Easterby-Smith & Lyles, 2011; Zahra, Abdelgawad, & Tsang, 2011).

Organizational forgetting and unlearning although both refers towards the knowledge loss, but the difference between both comes from perspective of intention. Azmi (2008), categorizes forgetting in form of planned and unplanned activity. Planned activity refers to intentional act of getting rid of knowledge whereas unplanned act is an accidental loss of knowledge. Figure 2, adapted from study of Azmi (2008), provides a categorization of forgetting on basis of positive/negative and planned/unplanned intention of knowledge. The planned/ unplanned horizon defines the intentionality axis and positive/negative defines the nature of knowledge loss and its effect on organization.

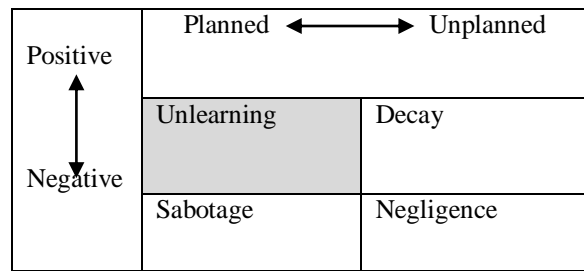


Fig.2: Categorization of Forgetting(Source:Azmi, 2008)

A deliberate disposal of unwanted and obsolete knowledge derives from study of Zahar, Gawad and Tsang (2011), advocating that multinationals when expanding to new territories should unlearn the cultural traits and capabilities mastered in domestic horizons. Whereas, evidence for forgetting to be labeled as unplanned loss of knowledge derives from study of EasterbySmith and Lyles (2011), citing how personal turnover can lead to an unplanned knowledge loss in an organization. Forgetting thus is tagged as an involuntary while unlearning is termed as an intentional act (Becker, Örtenblad, & Örtenblad, 2018).

Typology/ Definition:

This part enfold a brief typology of unlearning, how it is analyzed in literature. Unlearning got its prominence through Hedberg’s work (1981), “How to unlearn to learn” defining it as “Knowledge grows, and simultaneously it becomes obsolete as reality changes. Understanding involves both learning new knowledge and discarding obsolete and misleading knowledge”.

Similar notions come from Newstrom (1983) stating unlearning as “...the process of reducing or eliminating pre-existing knowledge or habits that would otherwise represent formidable barriers to new learning”. Thus, Newstrom explanation of the phenomena illustrates unlearning as reductionist approach for eliminating arduous organizational routines and habits which hinders the learning ability of an organization. With passage of time, different notions came up as well, such as, Cegarra-Navarro and Dewhurst(2006), stating it as “a dynamic process that identifies and removes ineffective and obsolete knowledge and routines, which block the collective appropriation of new knowledge and opportunities” and Tsang (2008), quoting it as “Discarding of old routines to make way for new ones”.

These definitions identify unlearning as a process of dynamic nature which is about addition and subtraction of knowledge appropriate for organization. Therefore, unlearning can be considered as source or pathway for learning is acceptable as Antonacopoulon (2009) stated, “unlearning as distinctive type of learning”.

Types of Unlearning:

Literature highlights the strategic value of unlearning as a catalyst for attaining competitive gains and means of advancing from level of “single loop learning” towards “double loop learning” (Akgün et al., 2007b; Moon & Ruona, 2015). The perspective of environment has been associated as a key factor with unlearning, studies in this realm cite environment as an ingredient in shaping unlearning context (Akgün, Byrne, Lynn, & Keskin, 2007a; Juan-Gabriel Cegarra-Navarro, Martinez-Martinez, Ortega Gutiérrez, & Luis Leal Rodríguez, 2013; Huang, Chen, Zhang, & Ye, 2018).

Basing on environment contingency, time and information required provide multiple facets of unlearning (Akgün et al., 2007b) and these facets are effective to deal with various environmental exigency faced. Figure 3, provides four quadrants based upon the change in routines and beliefs, labels in quadrants are adopted from study of Gnyawali and Stewart (2003).

Among the four quadrants , re-inventive unlearning is one having high rate of change in routines and beliefs, acting as source for radical transformation (Akgün et al., 2007b) and strategic realignment (Greenwood & Hinings, 1996), leading an organization to compete for future generation challenges in relation to disruptive technologies (J.-G. Cegarra-Navarro, Wensley, & Sánchez-Polo, 2010).

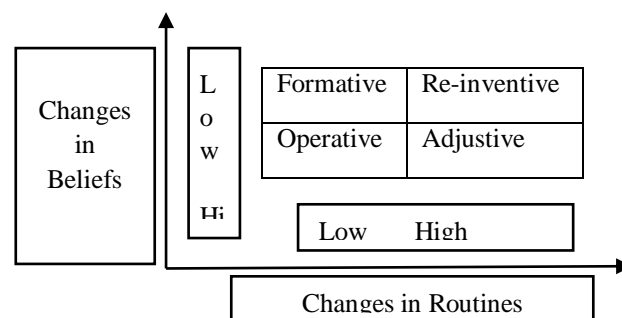


Fig.3:Types of Unlearning(Source:Akgün et al., 2007)

On the other hand, formative unlearning with change in belief is high as compared to change in routines, thus leading towards and incremental change process (Akgün et al., 2007b). Enabling managers to change, share mental maps for reshaping of information and enhancing organizational capability through re-interpreting and re-thinking of information (de Holan & Philips, 2004).

Adjustive unlearning takes the stance of “incremental changes” based highly on shift in routines, thus providing change in the performative routines of organization and focusing on innovation related outcomes (Yang, Chou, & Chiu, 2014). Finally operative unlearning with low rate of change in both routines and beliefs, leading small and continuous changes in organization rather than fundamental or radical change in policies, strategies or core values (Roldán, Cegarra, Cepeda, Gabriel, 2014). Organization encompass one or more forms of unlearning during its life cycle proceeding from small discrete changes to radical restructuring, labelling re-inventive and formative as deep unlearning while adjustive and operative as wiping process (Hislop, Bosley, Coombs, & Holland, 2013).

Unlearning—Unit of Analysis:

Unlearning literature, dissects its applicability at three levels: individual, group and organizational analyzing from both strategic and individual perspective. This analysis provides substantial processes and steps to cater up employee and organizational development.

Individual level

unlearning is seen as an enduring course of renouncing the old and obsolete knowledge and bringing in light new logics, attitudes and behaviors (Windeknecht & Delahaye, 2004). Individual unlearning is “distinctive” form of learning, referring to conscious willingness to give up existing beliefs, values and knowledge (Hislop et al., 2013).

As organizations cannot learn unless its members are able to learn, in similar fashion an organization would not be able to unlearn unless its members unlearn (Tsang & Zahra, 2008). Similarly, Gabriel Cepeda-Carrion, Juan Gabriel Cegarra Navarro and Eva Martinez-Caro (2012), cited in order to create room for organizational knowledge and values, there exists an emergence of unlearning context for its potential members which helps in elimination of “old logic at individual level”.

Organizations need to analyze how its primary units individual perceive unlearning for learning and relearning (Cepeda-Carrion, Cegarra-Navarro, & Jimenez-Jimenez, 2010) Absorptive capacity, awareness and motivation are the factors through which unlearning can be managed against change resistance among individuals (Akhshik & Parirokh, 2016; Cegarra Navarro, Cepeda-Carrion, & Eldridge, 2011; Wensley & Navarro, 2015).

Group Unlearning

enfold in organizational studies as a process of changing a group’s beliefs, values, norms and routines (Akgün, Lynn, & Byrne, 2003). Learning in an organization is subjected to the fact when its units both individuals and groups acquire information (Huber, 1991) in similar fashion unlearning is endorsed when group acceptance is acquired. Values and beliefs are deeply embedded in groups, changing value system of a group encompasses more challenges and leads to more resistance than individual unlearning (Johannessen, 1994; Zhao, Lu, & Wang, 2013).

Group/networks in organizations are built on social and political coalitions, determining the interests of organization. Traits and characteristics of these have strong influence on how unlearning proceeds in organization (Pedler & Hsu, 2014). Unlearning in teams help its members to think outside the “black box” and absorb new information system and technologies (Cepeda-Carrion, Navarro, & Martinez-Caro, 2012). However in case of vice versa it can worsen an organization performance in long run (Lawrence, 2018).

Organizational Unlearning

a system approach is seen in this perspective where persistent inflow of new knowledge processes and methods are incorporated by replacing old techniques in terms of knowledge sharing, delivery and improvement. Organizations seek to unlearning as a process which provides platform for crisis management (Sheaffer, 2003) and identified as moderator for organizations in case of knowledge compatibility and transference (Yildiz & Fey, 2010).

Change in beliefs and routines can be incorporated through structural changes and logical discussion providing an opportunity to upfront individuals feelings helping to unearth traditional and obsolete knowledge bases (Srithika & Bhattacharyya, 2009). Unlearning provides a lens to organization for analyzing its business

models (Rezazade Mehrizi & Lashkarbolouki, 2016), how learning remains incomplete without the essence of unlearning (Tsang, 2017), and to facilitate unlearning what internal and external factors are important (Becker et al., 2018).

Unlearning--Theoretical Underpinnings & Sub-Processes :

Although there exists paucity on literature of unlearning, still various theoretical underpinnings and its underlying mechanism provides concrete grounding of its existence. This section provides discussion about various theoretical models which has been used in literature as backdrop for unlearning.

Drawing from behavioral school,

Kurt Lewin’s Model of Change (1951), encompasses states of unfreezing, transition and refreezing.

- i. Unfreezing established on assumption of suspending the established structures through provision of psychological well-being, anxiety or dissonance behaviors.
- ii. Transition, which involves the changing of individual’s mental and cognitive maps, through semantic restructuring and redefinition.
- iii. Refreezing, which revolves around building and establishing of new mental structures based on incorporation of social uniformity, new knowledge and congruent changes in personality.

Based on contextual term

Parenthetic theory of Klein (1989), emphasizes aspect of context and bracketing. The model states that knowledge learned by individuals can never be erased and only be bracketed in order to learn new knowledge only if it’s incompatible. And to decide its compatibility, a context is provided either by organization or individuals. An evidence comes from study (Juan G. Cegarra-Navarro & Dewhurst, 2006), stating unlearning depends upon organizational and individual context as a prior step for learning process enhancing relational capital, support from management is required.

Another approach of change model linked with unlearning is proposed through French and Delahaye (1996), model of individual change comprising of “Four Phases of Security, Anxiety, Discovery, and Integration”. Encompassing the view that change is an ongoing and cyclical process, and an individual during phase feeling anxiety from loss of familiar processes would go for integration of knowledge to retain its sense of security. According to Windeknecht and Delahaye (2004), phases of individual change are linked with unlearning, which acts an integral part of individual change process.

Studies in early twenties provided a stage for unlearning to flourish and show its existence, descriptive studies came in view aiming both individual and organizational unlearning. Among such studies, Cegarra-Navarro and Dewhurst (2003), proposed three sub-dimensions by focusing specifically on “individual unlearning”:

- i. “Examination of Lens Fitting”, which centers arounds disrupting employees established comfortable and habitual state and formulating a context which enables to establish new information and perception.
- ii. “Framework of Changing Habits” infers how to inhibit wrong habits and patterns when individual are not in a state to understand new ideas and still have motivation for change.
- iii. “Consolidation of Emergent” relates to the processes through which organizations enable employees for application of their skills and capabilities based on new mental maps and structure of knowledge.

Another perspective which enlightens literature of unlearning comes from contribution of (M. Fiol & E. O’Connor, 2017), proposing an iterative and interactive process is required for letting go of established set of patterns, actions in order to avoid the relapse of old pattern and constitute a joint situated new understanding. On basis of routines, three interdependent sub-processes classifying unlearning are:

- i. “Initial Destabilization” – referring to disruption in old patterns and processes.
- ii. “Discarding from use of old”—which refers to giving up of old processes or patterns through experimentation and motivating for new behaviors.
- iii. “Eventual joint situated of release of old understanding and development of new one” – which requires the reinforcement for performative actions which constitute back ostensive routines.

Table 1, provides a summarized view of theories either used for providing a theoretical or complementary support to unlearning.

Table 1: Theoretical Approaches for Unlearning

Frequently Used Theories	Empirical / Qualitative Evidence
Lewin Model of Change (Lewin, 1951)	(Akhshik & Parirokh, 2016; Cepeda-Carrion et al., 2010; Gabriel Cegarra-Navarro et al., 2011)
Parenthetic Model (Klein, 1989) French and Delahaye (1996), model of	(Juan G. Cegarra-Navarro & Dewhurst, 2006)

individual change	
Cegarra-Navarro and Dewhurst (2003), proposed three sub-dimensions	(Cegarra Navarro et al., 2011; Antonio L. Leal-Rodríguez, Eldridge, Ariza-Montes, & Morales-Fernández, 2015)
Adner and Helfat (2003), model of dynamic managerial capabilities	(Matsuo, 2017b)

Unlearning a Quantitative or Qualitative Phenomenon?

Debates having been going on raising questions regarding the very absolute nature of unlearning addressing whether this topic has its own existence or merely a rented construct from arena of psychology. One of such criticism pertains to unwarranted notion of unlearning, a term borrowed by Hedberg from psychology and having no proper existence and definition(Howells & Scholderer, 2016). Countering up the argument Starbuck (2017) and Tsang (2017), argues that unlearning is a process which in itself carries understanding and provides a stream of works weighing to importance and practicality of the phenomena in organization. This section provides an overview of the studies providing evidences whether the construct carries has its own existence or a borrowed rooting from other discipline.

Enormous empirical studies have been laid down in literature in order to identify the practicality of organizational unlearning with reference to how incorporate unlearning among individuals. Karen Becker, Hyland and Acutt (2006), conducted study on employers survey in Australia, aiming to recognize the extent to which organizations focus on role of unlearning for development of its employees and to highlight existing policies that may assist in human resources practices. Unlearning has been identified as a supplemental tool for struggling against the malady of cynicism (Schraeder, Jordan, Self, & Hoover, 2016). By addressing an individual's belief and knowledge dimension to identify potential cues or signs of dissatisfaction and providing platform to speak out and re-addressing the knowledge perspectives, a remedy can be provided.

From individual perspective (Grisold, Kaiser, & Hafner, 2017), analyzed how unlearning can help an individual in deep learning process and contributing to one's self. Similarly, studies on organizational unlearning has been carried out to assess how organizations themselves practice the principles of unlearning.Holan and Philips (2004), with reference to tourism industry utilizing multiple case study designs addressed why and how organizations forget and how this helps to understand dynamics of knowledge in an organization. Many empirical researches focuses on unlearning from the perspective that how organizations create knowledge process with respect to the changing environment(Klammer & Gueldenberg, 2016).

Along with quantitative stream, there exists a qualitative perspective of unlearning to unleash and define its meaning through subjective explanation. Hafner (2014), through grounded theory approach defined and identified descriptive characteristics of unlearning among employees and how to achieve competitive advantage.Unlearning has been explored through case study perspective analyzing pre and post-acquisition effects on an organization (Lowrance, 2017) stating the steps forgetting applies in acquisition period. While (Usman, Hameed, & Manzoor, 2018) carried out semi-structured interviews in Pakistan to analyze how unethical behaviors can be eliminated from organizations to get rid of nepotism and ensure accountability and honestly perspectives in organizations.

Both the quantitative and qualitative aspect of unlearning provides an empirical and conceptual evidence to criticism raised on unlearning.

Antecedents and Consequences

Given consideration by researchers, concept of unlearning has been tested empirically and conceptually in yesteryears. This section provides a brief review of the studies identifying potential factors which incorporates to organizational unlearning or which yield out of it.To investigate how the essence of individual unlearning can be achieved, manager's exploration ability and reflection (Matsuo, 2017a) has been used, resulting these as affirmative indicators.

Unlearning has been explored with various other organizational aspects such as human resource development (Becker et al., 2006), environmental knowledge(Cegarra-Navarro and Aurora Martinez-Martinez,2013), radical innovation (Yang, Chou, Chiu, 2014), absorptive capacity (Cepeda-Carrion et al., 2010; Huang et al., 2018), relational capital (Vieira, 2015), firm performance, work life balance(J.-G. Cegarra-Navarro, Sánchez-Vidal, & Cegarra-Leiva, 2016; Antonio Luis Leal-Rodríguez, Eldridge, Roldán, Leal-Millán, & Ortega-Gutiérrez, 2015) goal orientation (J.-G. Cegarra-Navarro, Soto-Acosta, & Martinez-Caro, 2016), human capital and firm performance (Aledo Ruíz, Gutiérrez, Martínez-Caro, & Cegarra-Navarro, 2017) strategic resilience and leadership (Morais-Storz and Nguyen,2017), to analyze in application in SME'S, educational sector, nursing and healthcare and industries like metal contributing towards GDP of country. Table2,provides a brief review of various roles unlearning occupies in business studies.

Table 2: Evolving Role of Unlearning

Role of Unlearning /Forgetting	Antecedent	Consequence	Mediator	Moderator
	(Aledo Ruíz et al., 2017; J.-G. Cegarra-Navarro, Sánchez-Vidal, et al., 2016; Juan G. Cegarra-Navarro & Dewhurst, 2006; Huang et al., 2018; Wang, Xi, Xie, & Zhao, 2017)	(Matsuo, 2017a, 2018; Usman et al., 2018)	Matsuo, 2017;(J.-G. Cegarra-Navarro, Soto-Acosta, et al., 2016; Antonio L. Leal-Rodríguez et al., 2015; Wensley & Navarro, 2015)	(Yildiz & Fey, 2010)

Section III: Limitations of Study

Although the study attempted to review a comprehensive range of studies incorporating unlearning, possibility of missing out important or relevant data still exists. Besides, the criteria of choosing databases is subjective, based on availability of data and resources. The inclusion and exclusion criteria was discussed with peers and supervisors in order to achieve objectivity for research. Future studies, may incorporate a wide range data based using dissertation, chapters or econometric papers.

FUTURE AVENUES

Antecedents

Systematic review of unlearning provides interesting insights and possibilities for future research to further enhance its stream. Studies have identified crisis (Sheaffer, 2003), individual context (Juan G. Cegarra-Navarro & Dewhurst, 2006), environmental turbulence (Akgün et al., 2007a) counter-knowledge (J.-G. Cegarra-Navarro, Soto-Acosta, et al., 2016), goal orientation and reflection (Matsuo, 2018) as the possible antecedents for unlearning. All possible constructs depict the exogenous variables influencing unlearning, whereas review provides scope for future researchers to provide empirical and conceptual descriptions for endogenous influence such as, power, time, nature of knowledge (Casey & Olivera, 2011), leadership (Morais-Storz & Nguyen, 2017) and organizational culture (Huang et al., 2018).

Process Model

The review provides description of various model, providing theoretical supporting to unlearning. Still lapse is found in area of underlying processes governing it. Fiol's model of destabilization provides underlying mechanism of unlearning, an empirical evidence and experimentation would enhance its applicability (Morais-Storz & Nguyen, 2017) to identify context and institution factors prevailing this phenomena.

Consequences

Unlearning casts its effects on various organizational processes such as, innovation (Antonio L. Leal-Rodríguez et al., 2015) knowledge stickiness (Fernandez & Sune, 2009), inferring its role in form classifying culture attributes and reducing knowledge stock for innovation.

In very same fashion, role of unlearning has been identified in case of knowledge transfer (Wang et al., 2017) across border, stating as a medium for organizational gain. Although influences of unlearning on organizational aspects can be traced but still gap is left in area such as what changes unlearning induces on employee performance, quality of services or organizational values (de Holan & Phillips, 2004).

Level of Analysis

Studies in the review indicates that much emphasis have been laid on individual unlearning (Matsuo, 2017b) and organizational unlearning but in its realm of group unlearning, still a gap exists. Notions such as, social influence, peer pressure, supervisor support can provide interesting insights in terms of conceptual and empirical analysis for group unlearning.

CONCLUSION

Through means of content analysis, the paper attempts to systematically review 77 articles exploring stream of literature on unlearning. The study centers its approach by reflecting unlearning, through its relation with organizational forgetting, theoretical groundings, quantitative and qualitative approaches, its triggering forces, outcomes and finally seeking out the possible avenues for future research.

The review reveals that unlearning has occupied its distinctive position in studies of organizational behavior but still it requires advancements with reference to its triggering forces, group mechanism and underlying processes. Study provides glance of areas, which can be taken in consideration for future research such as from individual perspective it can be used to investigate employee's perceptions about knowledge management, service quality, employee performance and creativity.

In line of organizational context, phenomenon like culture, innovative capacity, cynicism and OCB can be taken in consideration. Likewise, from individualistic and group perspective the employee, creativity, individual absorptive capacity, team performance and group support can be potential areas to explore. Furthermore, its potential influences can be studied in both public and private sectors or a comparative study highlighting which one is more prone to utilizing it.

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