



IMPACT OF LEADERSHIP IN THE CONTEXT OF ORGANIZATIONAL LEARNING AND FORGETTING IN GOVERNMENT UNIVERSITIES OF PAKISTAN

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KeyWords

Leadership, Organizational Learning, Organizational Forgetting

ABSTRACT

Technology based learning and forgetting stay with the rules set by the learning organization. Organizational learning can be affected by various factors and these factors may result in different ways. In this paper the impact of leadership was assessed in the context of organizational learning and forgetting. A quantitative approach was adopted to figure out the objectives of this study. In this method we have used 5-likert scale approach through which we have collected data from 300 respondents of public sector universities registered with the Higher Education Commission (HEC) of Pakistan. This research provides a thorough view about learning and forgetting factors of organization by considering the role of both transformational and transactional leadership. The outcomes indicate that organizational leadership (transformational and transactional) play an important role in organizational learning and forgetting, although transformational leadership style has a strong impact on organizational learning as compare to organizational forgetting. Future recommendation is this study is to explore more leadership attributes in context of organizational learning and forgetting. All-inclusive this paper offers new understanding about how different leadership style is helping an organization in learning new things and forgetting unwanted data by adding socio cognitive theories in prior knowledge.

INTRODUCTION:

1.1 BACKGROUND OF THE STUDY:

Learning and forgetting are the simultaneous event of the learning organizations(Haijun Kang a, Jamshid Ali Turi, Shahid Bashir, Mohammad Nurul Alam, Shoib Ali Shah 2021). They consider that learning and forgetting bestows new ways, new determinations, eagerness and new desires to organizational learning (Alalwan, Dwivedi, Rana, & Williams, 2016; Alemanno, 2014). Any learning organizations that want to go with the pace of the world it is obvious for them to adapt the environmental changes and keep its track with global world (Haijun Kang a, Jamshid Ali Turi, Shahid Bashir, Mohammad Nurul Alam, Shoib Ali Shah 2021). Therefore, their transformations from start-up to scale up, through with the change management practices, may gradually result in loss of organizational learning effectiveness (Bierly, Kessler, & Christensen, 2000; Cheon, Crooks, Chen, & Song, 2015).

Although, there are number of intrinsic and extrinsic factors that affect the organizational learning, operations and its productiveness (Haijun Kang a, Jamshid Ali Turi, Shahid Bashir, Mohammad Nurul Alam, Shoib Ali Shah 2021). Project and product-based organizational structure often add more to ad-hocism. Organizational framework that is founded on projects and products increases ad-hocism. Because of internal instability, employees working in those organizations may not learn well (Barbato & Turri, 2017). Due to consolidation and composite hierarchal structure, these organizations generally lack the learning and allocation of knowledge among their divisions (Geereddy, 2017). Similarly different problems are face by project-based organizations in obtaining and preserving learning and experiences to enhance their progress (Palos & Stancovici, 2016),which may result in losing organizational productiveness and workers efficiency (Briz-Ponce, Pereira, Carvalho, Antonio Juanes-M´endez, & Jos´e Garc´ia-Penalvo, 2017).

Grounded on the above-mentioned rationales in this study we will investigate how different leadership styles are affecting organizational learning and forgetting. Previous research illustrates that leadership is important in achieving organizational goals and competitiveness and helps in organizing resources and people (Fiaz et al., 2017; Jing and Avery, 2016). As leadership and organizational learning have an great impact on organizational innovation that's why it has received a lot of attention from different scholars (Chaithanapat et al., 2022; Garc´ia-Morales et al., 2012; Hsiao & Chang, 2011; Jung et al., 2003;Noruzy et al., 2013; Tandon, 2021).

1.2 SIGNIFICANCE OF STUDY:

Previously the focus of leadership was creation and newness through mediating role of all four sub-factors of organizational learning namely, pursuit of knowledge, distribution of knowledge, explanation of knowledge and organizational memory (Van et al. 2018). High level management demands to demonstrate dedicated leadership behavior to encourage and influence other managers and employees, in order to solve conflicts and equalize powers, payoffs desirable conducts at different phases of the system lifecycle I-e acceptance, execution, integration, and expansion Shao et al. [12] This study investigates how leadership impact on organizational learning and forgetting. The current research can be important for several reasons. First, previously leadership theories have focus on only individual learning, efficiency and innovation. Therefore, not much information is available about impact of leadership on organizational learning and forgetting (Van et al., 2018; Zagorsek et al., 2009; Vashdi et al., 2019; Uddin et al., 2017). The purpose of this paper is to provide new understanding of how different leadership styles influence organizational learning and forgetting. Even though the leadership theories are rich and distinguishable, the transformational and transactional leadership structure is specifically prominent in the context of organizational learning .M. Burns, Leadership, Harper& Row, New York, 1978. In addition, organizational culture of an organization, more specifically the learning culture, is positively associated with both these two types of organizational learning. B.M. Bass 1985. This is because organizational learning recommends that both transformational and transactional leadership are essential driver of experimental and exploitation learning J.J. Jansen, D. Vera, and M. Crossan. Moreover, the learning culture of an organization is positively related with these two types of organizational learning. L. Nemanich, D. Vera. Higher level management who are playing the role of leadership has an important impact on organizational learning culture. E. Schein Jossey-Bass, San Francisco, 2004.

Furthermore, hence forgetting is an external and required occurrence like obstruction, therefore contextual (cognitive, social, and behavioral) factors of forgetting are linked with the behavior of leadership is also recommended (i.e., by Aranda , Arellano, & Davila, 2017). However, few conflicting opinions were also witnessed from the scholar some scholars recommend that organizational learning can be productive with the help of information and communication system, whereas others counter that organizational cognitive, behavioral, and social factors can be enhanced with the help of data system and moveable technology (Aggestam, Durst, & Persson, 2014; Alalwan et al., 2016; Apostolou, 2014)

Learning activities taking place in a perpetual period but thoroughly helps to gain new knowledge more conveniently as when we gain knowledge about new things we also have prior knowledge existing in our minds (sometimes consisting of misunderstandings). The outdated beliefs and information try to activate in a situa-

tions where we need to apply advance knowledge, taking us into old scenario. That's the reason we need the process of forgetting with the period of time to avoid wrong doing (Lassonde et al., 2016; Mareschal, 2016).

Organizational learning communities are those where leaders from one organization supports learning and work collaboratively (Piret Oppi, Eve Eisenschmidt). Various applications and structures has been designed for learning and forgetting, which can reduced the burden of the employees (Conklin, 2001; Hooff et al., 2011; Joseph, 2014; Belle, 2016).

1.3 PROBLEM STATEMENT AND RESEARCH GAP:

Lined up with the way of thinking and recommendations of the previous studies about the effectiveness of organizational learning and forgetting, a study was carried out to determine the impact of leadership on organizational learning and forgetting. This study is continued to be productive. This study is exploring how a different style of leadership enables the organizational learning and forgetting in context of cognitive, social and behavioral factors.

To better grasp the understanding of Organizational learning and forgetting and how high level management leadership affects these factors, a theory- driven strategy is used to consolidate different leadership styles or organizational learning and forgetting (cognitive, social and behavioral) into a comprehensive model in order to enhance the better understanding among these factors.

Firstly, we aim to review the joint effect of both leadership styles on organizational learning in context of cognitive, behavioral, and social factors. Second, how different styles of leadership effect on organizational forgetting .These relationships has never been tested before with empirical data. To execute these research objectives, we have used prior theoretical work by (Haijun Kang, Jamshid Ali Turi, Shahid Bashir, and Mohammad Nurul Alam Shoib Ali Shah 2021) on organizational learning and forgetting. In previous studies it was recommended that role of leadership in the context of organizational learning and forgetting was not studied yet this was the reason that we are exploring impact of leadership in the context of organizational learning and forgetting.

We have divided this study into six sections. In section one we have an introduction of topic with background, problem statement, research objectives, research questions and significance of the study. Section two and three covers the literature review and hypothesis development whereas section four explains the applied research methodology. In section five we have a presentation of the data, testing of hypothesis and the analysis of data. Last section covers our results and findings, limitations and recommendations for future research.

1.4 RESEARCH OBJECTIVE:

- To study the impact of leadership styles on organizational learning.
- To examine the role of transformational and transactional leadership on learning and forgetting factors of universities.
- To investigate the impact of leadership styles on organizational forgetting.

1.5 RESEARCH QUESTIONS:

Q.1 what is the impact of different leadership styles on organizational learning?

Q.2 what is the impact of different leadership styles on organizational forgetting?

Q.3 how does transformational and transactional leadership impact the learning and forgetting factors of universities?

LITERATURE REVIEW:

- **Organizational learning:**

Effective Organizational learning refers to the intelligible, general, and attitude receptiveness of the organizations to adjust in the changes occurring in the external environment. It expands the organizations, uses their upcoming chances and opportunities, highlights their risks and threats, and strengthens their capabilities and abilities in order to enhance their performance. (Cristian-Valentin, 2014)

Previous studies reveal that at the same time organizations pursue exploratory and exploitative learning in extrinsic knowledge acquisition and intrinsic knowledge integration. 65] R. Katila, G. Ahuja, J. (2002) Exploitive learning and exploratory learning can be commendatory and the contemporary advancement of these two types of learning has an absolute effect on firm's innovation and performance. J.G. March, P.J. Lane, S.A. Zahra, G. George

Individual learning is an organizational learning that has an impact on organizational decisions argued by (Simon, 1991) Organizational learning can be defined as a process through which management uses techniques to enhance the abilities of organizational members for the effective management of organization and its environment (Jones, 2000) Organizational learning doesn't occur in segregation but in the boundaries of organizational surroundings (Zhen Shaoa, Yuqiang Fenga, Qing Hub, 2017) Organization learning relates to producing, companionating, explaining, and keeping knowledge that is necessary for better performance of organiza-

tion(Rehman et al 2019) Organization learning plays an important role in organizations development running in a hustle environment.(Ngoc Khuong Maia 2022)

For learning to be more effective it needs to be supported by modern stimuli such as information systems and mobile technology. (Briz-Ponce, L., Pereira, A., Carvalho, L., Antonio Juanes-Mendez, J., & Jos'e García-Peñalvo,, 2017)

The Information system can best assist the outcome for learning and forgetting effectiveness while mobile technology still cannot develop the capability to work for the removal of information or sequencing of information. Whereas it is easier for an information system to handle learning and forgetting factors by using text-mining and data mining. ((Canessa-Terrazas & Morales-Flores, 20, 2017)

Information system has lowered the responsibility of humans and organizations to keep the memory by presenting the needed information at the right time helps in improving learning and their effectiveness. (kuo, 2013) Information system has also design consolidated networks which can be best utilize in promoting organization learning through subroutines and infrastructures (Appelbaum, S. H.Borrelli, F., Ponsiglione, C., landoli, L., & Zollo, G, 2005) According to some researchers there is an inbuilt connection between information system and learning organization. In each and every stage of an organization's life cycle (such as analogy of a learning and information system) is elicited through observation, storage, interpretation and implementation. (Tofan,Hashmi, Al-Mamary et al,; Nwaocha, 2013.2016)

- **Leadership:**

Leadership is an directing process between leaders and followers in order to achieve effective organizational and team goals(Hogan et al.,1994)

Over the decades theories of leadership have expanded, primarily focusing on features and behaviors of quality leaders (M.B. Gregoire and S.W. Arendt 2004)

Attributes of Leaders include emplacement, absolutism, self-assurance, opportunistic, self-supervision and risk-taking.(Solaja 2016)

Notable amount of time has been spend by different leadership scholars in order to define their primary construct of study (Reiche et al., 2017).

That one person can be a leader who have a quality of making other person to do something(Ciulla, 2020). This is the prove that organizational learning culture can be improve by providing the important position and power to leadership to control different business actions (Salas-Vallina et al., 2020 Walumbwa et al., 2017). Therefore it is important for each and every organization to strengthen organizational leadership efficacy in

order to increase the productivity of an organization as a whole I-e directly and indirectly (Arzubiaga et al., 2018; Moslehpour et al., 2019)

This perspective has been widely supported by some scholars who believe that productivity of a company, its efficiency and performance, as well as company's successfulness are closely related with the leaders moral attitude and their procedure over a specific organization (Feng et al., 2019; Saha et al., 2020; Sarwar et al., 2020; Shafique et al., 2019).

During the 19th century, some scandals and frauds come into the discussion which helps in the improvement of behavioural studies of organizational leadership and their impact on different aspects of organization performance (Badrinarayanan et al., 2019; Lin et al., 2020; Saha et al., 2020; Shafique et al., 2019).

Therefore researchers must give more explanation on the essential role of leaders in organizations for the improvement of organizations performance by implementing and reinforcing multiple environmental and social procedures in organizations (Saha et al., 2020; Sharma et al., 2019)

The need for achievement, risk-taking propensity, and internal locus of control are three important traits of leaders that profoundly impact business performance. (S. Sidek and F.A. Zainol 2011)

Impersonation of the leader by his or her chasers is a common feature of transformational leadership. (Zubin R. Mulla Venkat R. Krishnan 2022)

The believers of transformational leaders go through a deep and unbreakable recognition of leaders and their mission. This recognition can result in resemblance of value systems between the followers and transformational leaders because values are essential element of such recognition. . (Zubin R. Mulla Venkat R. Krishnan 2022)

In comparison of transactional leadership, transformational leadership is more better as it relies on bilateral exchange of valued outcomes such as monetary benefits and upgrading for hard work (Burns, 1978)

Burns (1978) was the first who put forward the actual meaning of transformational leadership and later further defined by Bass (1985) as

"Association between the leader and follower characterized by the extreme emotional attachment in seeking common goals.

"Leaders and Followers promote one another to next level of inspiration and integrity " (Burns, 1978)

Transformational leaders not only acknowledge and utilize current need of prospective employee, but also they look for possible motives in followers. In this regard they fully involve their followers to achieve maximum potential (Burns, 1978).

In transformational leadership the most important task is to bring up the awareness and understanding of their followers to increased levels of performance and morality (Burns 1978).

Transformational leaders encourage employees by reforming their values so their concerns are more towards group and organizational objectives (Bass, 1985).

Previous studies have illustrated that transformational leadership has positive impact on the employee's willingness to sacrifice for the business unit (Shamir, Zakay, Breinin, & Popper, 1998).

Employees who have transformational leaders gave more preference to such values like "self respect" and "being honest" and less preference to "pleasure" as compare to those followers of leaders who did not have transformational leadership behavior (Mulla & Krishnan, 2011).

- **Theoretical perspective of organizational forgetting**

Organizational forgetting, like learning is a usual fact Haijun Kang, Jamshid Ali Turi, Shahid Bashir, Mohammad Nurul Alam and Shoib Ali Shah. It usually happens when data and information become pointless and we don't need them for a longer period of time (Aydin & Gormus, 2015). As forgetting allows new things to happen which can lead to more efficient effective and profitable learning that's why biological and psychological sciences grasp and value forgetting (Blackman & Henderson, 2013). Different theories of forgetting have been thoroughly discussed in psychology and biological sciences notably when explaining how forgetting exist in multiple settings and memories (Ahmed, 2008; Caple & Martin, 1994).

According to trace decay theory memory loses its contents when it is not recognize for a longer period of time and data (stored) gets outdated and less accurate (Birmingham, 2015). In order to accomplish consistency and to become more strengthen in personal and social (organizational) existence it's important to forget unnecessary and unpleasant data. An Austrian neurologist named Sigmund Freud. According to (Eisenberg 2016) we need to practice forced forgetting at individual and organizational level in order to live a smooth and happier life. In interference and suppress theory dean 2016 and ford ,2006) claims that forgetting usually occurs due to the obstruction of many intrinsic and extrinsic stimuli ,which gradually resist and force the memory to suppress its information.

Hence there are some models of unlearning and forgetting like "The extinction model, the discard of unneeded knowledge from an individual; The replacement model, the circulation of advance knowledge to an individual, The exorcism model, the expulsion of individuals from an organization whose behavior is unsuitable; The salvation model, both individual and organization unlearn with the period of time as they usually don't want to repeat unnecessary information.(Canessa-Terrazas & Morales-Flores, 2017; Chiva, 2011; Cheon et al., 2015).These all above models favor the concept that individuals, and organizations, forget with the period of time due to any of the above-stated reasons.

Technological advancement has a considerable impact on individual and organizational lives by reshaping their lives. Haijun Kang, Shahid Bashir. Latest technologies and information systems have a great impact on organizational awareness and understanding as mentioned in socio-technical organizational cognitive theory (Haijun Kang, Shahid Bashir). As information systems are the most exogenic factors in multiple forms to notch up and detach the referential contents (Miertschin, Stewart, & Goodson, 2016). Prior research shows that in order to improve an organization's efficiency and effectiveness, information systems and mobile technology can be supportive tools in learning and forgetting. (Alhabeeb & Rowley, 2017; Briz-Ponce et al., 2017).

- **Theoretical perspective of organizational cognitive learning**

According to cognitive learning theories, Organizations are considered as learning bodies and extended human being (Borrelli et al., 2005; Mead, 2013). Organizations also have storage systems, information processing structures and models as same as humans have (Gohlich, " 2016; Goldin, 2014). Organizations establish their way of learning through individuals according to draft and weick(1984).Individual leaning is evaluated, modified, shared explained and integrated into organizational learning according to the needs of organizations (Wiseman, 2007; Hilden and Tikkam"aki, 2013)

In cognitive processes, Personal narratives has an great impact on learning organizations as compare to information because of actual experiences and thoughtful observations (Agarwal & Garg, 2012; House of Commons, 2009). By expanding learning classification, in accordance with individual choices kims(1993) asserts that learning based on experiences is considered as a basic process of organizational intelligence (Skuncikiene, Balvociute, & Balciunas, 2009; kerlavaj, Dimovski, & Pahor, 2010; Wang & Ellinger, 2014). Likewise, computational cognitive theory favours cognitive elements for the learning advancement for both individual and organizational level; and slowly require the active association of the intellectual workers, and the updated technological gadgets for the development of organizational learning (Akgün, Gary, & Byrne, 2003; Sun, 2012)

In order to keep an dynamic and attentive cognitive system of the organization, synthetic organizational cogni-

tions, artificial intelligence and assist systems can be developed (Alhabeeb & Rowley, 2017; Gohlich, " 2016). Briefly cognitive development plays a primary part for the success of organizational learning. The significant plan of action, in this regard, is the information processing capacity of the organization; and the hands on experience of the employees to tackle various threats and opportunities of the organization. Haijun Kang a , Jamshid Ali Turi b , *, Shahid Bashir c , Mohammad Nurul Alam d , Shoib Ali Shah e

- **Theoretical perspective of organizational behavioral learning:**

Behavioural learning emphasis on the equitably on visible behavior of the learning organization (Choo, 2016; Dosi & Marengo, 2007). A very comparable concept of learning is offered by fiol and lyles (1985) and Cartwright (2002), as they both seek behavioral learning through apparent change in behaviors' and practices. They signify the two most important dimensions of learning i-e cognitive and behavioural advancement. Social networking is a link that can change behavioral and cognitive advancement (Ahmed, 2008; Appelbaum, 2000). The organizational transformation process is primarily based on the results; which intentionally and unintentionally offers the road for behavioral learning (Hieronymi, 2013). This was also explained as a path-dependency process (Nelson and Winter, 1982), which means that organizations future behavior is based on collective learning; in behavioral learning it is also named as positive reinforcement. This reveals that lower-level learning persist in organization as associative learning, especially footed on the stimulus-response model. Higher-level learning is considered as a more cognitive process (Fiol & Lyles, 1985), by including the interrogation of the outcomes of behavior, and seeking a more deep awareness of the causation of organizational process. Furthermore, higher-level learning allows a more difficult pattern of association between cognition and behavior. This involves the alteration of precise behaviors', directed by the outcomes of both intrinsic and external demands (Ang and Joseph, 2011; Aranda et al., 2017).

- **Theoretical framework :**

In Strategic management organizational leaders are considered as a major players for distinguishing and accepting strategies and recognized as a supportive manifesto for different organizational strategies (Parvaneh Saeidi, Lorenzo Adalid Armijos Robles, Sayedeh Parastoo Saeidi and María Isabel Vera Zamora 2021). Leadership is an essential issue that has an impact on the success and failure of any organization (Kocolowski 2010). Leaders are the innermost group of the organization that compose, articulate and implement the long term moves of the organization (Guadalupe et al. 2014) Organizations have been always named as extensive individuals (Appelbaum, 2000; Bustinza, Molina, & Arias-Aranda, 2010). They get to know from internal and external environment, forces and related factors (Scott, 2011) They keep remembering, maps and models that process data and experiences (Palos & Stancovici, 2016; Palthe, 2014). These learning's and happenings adds to

organizational learning effectiveness and improve their wisdom and effectiveness level (Beauregard et al., 2015)

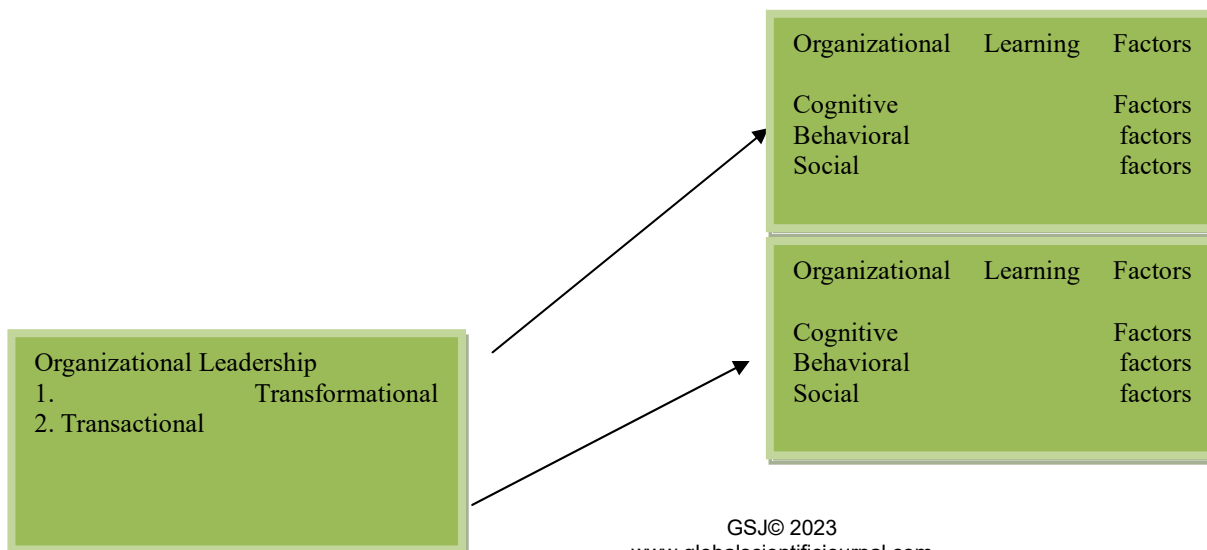
Organizational leaders do best for the continuity and operability of learning factors , that not only enhance organizational performance but also strengthen the learning effectiveness of individuals and groups (Chiva, 2011; Otilia et al., 2014). According to these research syntheses, we can conclude that

H1 Organizational leadership significantly influence organizational learning factors

Forgetting grant space to latest learning (Aranda et al., 2017; Palos & Stancovici, 2016). Previous methods, techniques, systems and processes cannot satisfy new organizational, social and environmental demands (Bustanza et al., 2010; Elbanna, 2015) Therefore, it is suggested that approaches, models and procedures continue to change. When the personals and groups originate new and better ideas and the old beliefs and thoughts are replaced with new ones, this process is known as assimilation and accommodation. (Blackman & Henderson, 2013; Kim, 2013)

These ongoing processes reinforce learning and promote organizational effectiveness (Huang, 2016; Kane & Alavi, 2007). Such forgetting and learning take place at all cognitive, behavioral and social aspects. Leaders are considered as a mirror image of firm's organizational structure as well as the official family that sets the organizations strategy, systematize activities, distributes the resources across the business units and motivates the employees for adopting change and cope with new technologies and pace of the world (Parvaneh Saeidi, Lorenzo Adalid Armijos Robles, , Sayedeh Parastoo Saeidi María Isabel Vera Zamora 2021). Organizational leaders can be considered as an essential and effectual influential internal factor in the success and failure of any long term strategy designed for the organization in order to improve organizations productivity (Eide et al., 2020). Organizations continue their self's constituent and try to modify according to the changes in requests and demands (Beauregard et al., 2015; Elbanna, 2015; Scott, 2011). These research findings suggest that

H2 Organizational leadership significantly influence organizational forgetting factors



RESEARCH METHODOLOGY:

Research Approach

Basic research is also called fundamental research. In this type of exploration the main focus is enriching the understanding of a specific happening, research or law of nature. In this type of research, researcher analyzes the data to determine the unknown relation and to satisfy the sense of curiosity. Generally this type of research uses "how", "what", and "why" type questions to explain happenings. Basic research investigates about how operations and different theories work. Data collected from basic research approach usually produces the foundation for applied studies. Our research is basic because of the above mentioned reasons as we are determining how leadership styles impact on organizational learning and forgetting.

Sampling Design

Target Population

Data were collected from public sector universities of Karachi (Pakistan). Teaching faculty of public sector universities of Karachi was our target population. The reasons for considering this sector as a target population is they can deliver more enhance understanding of a identified research gap.

Sample Size

Data were collected from public sector universities of Karachi (Pakistan) from 300 faculty members.

Sample size is consisting of 300 members in order to get precise and exponentially correct data.

Sampling Technique

Sampling technique we have used is stratified random sampling in order to give an appropriate demonstration of all faculties registered with the Higher Education Commissions (HEC) of Pakistan. Stratified random sampling was used upon the suggestion to search in arts, social and management faculties. The purpose is to cover the comprehensive areas with a appropriate presentation of all kind of nominees of the population. (Geereddy, 2017; Leavitt, 2011).

Instrumentation

From prior research we have adopted a questionnaire. The studies selected for questionnaire selection were based on the assumption that framework of the previous studies were also conducted in learning organizations. Furthermore, we have reconfirmed all questions from theories and cited literature was used to accom-

plish the objectives of the study. This method is considered as a primary data collection method in research. The questionnaire consist of two sections in which one section covers the basic questions regarding the demographics of respondents and other sector is composed of main questions of research. We have used five point likert scales to get the responses from respondents.

Demographics of the study

We have collected data from 300 respondents working in public sector universities of Karachi. The precise demographic information desired in the study includes the respondent's designation, and experience. Moreover some basic information about having leadership qualities were also collected, objective was that data should be collected from those respondents who are having some leadership qualities or working in an environment where they need to have leadership qualities. Our Respondents were lecturer, Assistant Professor, \

Table 1.1A Demographics

DESIGNATION					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Assistant Professor	133	44.3	44.3	44.3
	Associate Professor	27	9.0	9.0	53.3
	Lecturer	116	38.7	38.7	92.0
	Professor	24	8.0	8.0	100.0
	Total	300	100.0	100.0	
EXPERIENCE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 to 5 years	54	18.0	18.0	18.0
	10 to 15years	107	35.7	35.7	53.7
	15 and above	81	27.0	27.0	80.7
	6 to 10 years	58	19.3	19.3	100.0
	Total	300	100.0	100.0	

The percentages of designation and experiences of teachers are available in Table 1.1A. The table consists of 4 attributes including Frequency, Percent, Valid Percent and Cumulative Percent. In Designation, there are 133 Assistant Professors, 27 Associate Professors, 116 Lecturers and 24 Professors are mentioned. The experiences include 0 to 5 years, 6 to 10 years, 10 to 15 years, and 15 above.

Table 1.1B Demographics

DESIGNATION * EXPERIENCE Cross tabulation							
			EXPERIENCE				Total
			0 to 5 years	10 to 15years	15 and above	6 to 10 years	
DESIGNATION	Assistant Pro- fessor	Count	3	90	38	2	133
		% within EXPERI- ENCE	5.6%	84.1%	46.9%	3.4%	44.3%
	Associate Pro- fessor	Count	0	6	21	0	27
		% within EXPERI- ENCE	0.0%	5.6%	25.9%	0.0%	9.0%
	Lecturer	Count	49	11	2	54	116
		% within EXPERI- ENCE	90.7%	10.3%	2.5%	93.1%	38.7%
	Professor	Count	2	0	20	2	24
		% within EXPERI- ENCE	3.7%	0.0%	24.7%	3.4%	8.0%
Total		Count	54	107	81	58	300
		% within EXPERI- ENCE	100.0%	100.0%	100.0%	100.0%	100.0%

In Table 1.1B the cross tabulation of designation and experience are presented. The four designations and experience years as mentioned in Table 1A are used in this table. Results shows that only 3 assistant professor are having experience from 0 to 5 years, 2 having experience of 6 to 10 years, 90 having experience from 10 to 15 years and 38 having experience of 15 above years. The 6 assistant professors are having experience of 10 to

15 years and 21 having experience of 15 above years. The results also show that 49 lecturers belong to 0 to 5 years, 54 having experience of 6 to 10 years, 11 having experience of 10 to 15 years and only 2 belongs to 15 above year experience. Finally, the professors with 0 to 5 year of experience are only 2, 20 belong to 15 above experience and only 2 belong to 6 to 10 years. This concludes that majority of the experiences are from 10 to 15 years.

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FINDINGS AND ANALYSIS:

DISCRIPTIVE ANALYSIS:

Descriptive statistics are brief illustrative constants that examine a given set of data, through which we can have illustration of whole population or can take sample from population. Descriptive statistics have central tendency which include mean, median while criterion of dispersion includes basic deviation, range and variance.

Table 2A Descriptive					
Transformational Leadership					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal Quality	141	47.0	47.0	47.0
	High Quality	159	53.0	53.0	100.0
	Total	300	100.0	100.0	

The transformational leadership is presented in Table 2A. It consists of same four attributes Frequency, Percent, Valid Percent and Cumulative Percent as presented in the Table 1A. The 2 attributes are used to measure the quality, including Normal Quality and High Quality. Results shows that the ratio of high quality w.r.t percent, valid percent and cumulative percent is greater as compared to Normal Quality

Table 2B Descriptive					
Transactional Leadership					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal Quality	137	45.7	45.7	45.7
	High Quality	163	54.3	54.3	100.0
	Total	300	100.0	100.0	

Table 2B describes the information regarding transactional leadership, in which the same four attributes Frequency, Percent, Valid Percent and Cumulative Percent from Table 1A are presented. It is also measured using

two attributes Normal Quality and High Quality. Results shows the 45.7% belongs to Normal quality and 54.3 belongs to High quality w.r.t percent and valid percent. While the normal and high quality for cumulative percent are 45.7 and 100 percent respectively.

Table 2C Descriptive					
Cognitive learning factors					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Quality	14	4.7	4.7	4.7
	Normal Quality	229	76.3	76.3	81.0
	High Quality	57	19.0	19.0	100.0
	Total	300	100.0	100.0	

The factors of Cognitive learning are described in Table 2C. In this table, I have used 3 attributes for measurement including Low, Normal and High quality. Results shows that the ration of normal quality is greater as compared to Low and High on the basis of percent and valid percent. For cumulative, the percent of high quality is greater.

Table 2D Descriptive					
Social factors of learning					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Quality	23	7.7	7.7	7.7
	Normal Quality	232	77.3	77.3	85.0
	High Quality	45	15.0	15.0	100.0
	Total	300	100.0	100.0	

The factors of Social learning are presented in Table 2D. The four attributes from Table 1A has been taken and three attributes Low, Normal and High have been used for measurement. The results of Table 2D shows that the percent and valid percent of Low, Normal and high quality are 7.7, 77.3 and 15 respectively. While the cumulative percent of low, normal and high quality are 7.7, 85.0 and 100.0 respectively.

Table 2E Descriptive					
Behavioral forgetting factors					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Quality	14	4.7	4.7	4.7

	Normal Quality	253	84.3	84.3	89.0
	High Quality	33	11.0	11.0	100.0
	Total	300	100.0	100.0	

Table 2E presents the behavioral forgetting factors, which shows that the percent of low quality is 4.7, normal quality is 84.3 and high quality is 11.0 on the basis of percent and valid percent. The cumulative percent of low, normal and high quality are 4.7, 89.0 and 100.0 respectively.

Table 2F Descriptive					
Social forgetting factors					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Quality	11	3.7	3.7	3.7
	Normal Quality	113	37.7	37.7	41.3
	High Quality	176	58.7	58.7	100.0
	Total	300	100.0	100.0	

The social forgetting factors are available in Table 2F. Which shows that the percent and valid percent of low, normal and high quality are 3.7, 37.7 and 58.7 respectively. While, the cumulative percent of these three attributes are 3.7, 41.3 and 100.0 respectively.

Table 2G Descriptive					
Cognitive forgetting factors					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Quality	24	8.0	8.0	8.0
	Normal Quality	201	67.0	67.0	75.0
	High Quality	75	25.0	25.0	100.0
	Total	300	100.0	100.0	

The cognitive forgetting factors are presented in Table 2G. The result shows that the low, normal and high quality obtained 8.0, 67.0 and 25.0 on the basis of percent and valid percent. The cumulative percent achieved for low, normal and high quality is 8.0, 75.0 and 100.0 respectively.

Table 2G Descriptive

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Transformational Leadership Average Score	300	2.9	5.0	4.031	0.5073
Transactional Leadership Average Score	300	3.000	5.000	4.01125	0.554727
Cognitive learning factors Average Score	300	1.67	5.00	3.38	0.78
Social factors of learning Average Score	300	2.00	5.00	3.15	0.72
Behavioral forgetting factors Average Score	300	1.67	5.00	3.32	0.65
Social forgetting factors Average Score	300	2.00	5.00	3.89	0.73
Cognitive forgetting factors Average Score	300	1.33	4.67	3.28	0.75
Valid N (list wise)	300				

Table 2G presents the descriptive statistics, which consists of 5 attributes including N (total number), Minimum, Maximum, Mean and Standard deviation. The value of N is set to 300 for all the scores. The average score of transformational leadership for minimum is 2.9, for maximum is 5.0, mean is 4.031 and standard deviation is 0.5073. The average score of transactional leadership for minimum is 3.000, for maximum is 5.000, mean is 4.01125 and standard deviation is 0.554727. The average score of cognitive learning factors for minimum is 1.67, for maximum is 5.00, mean is 3.38 and standard deviation is 0.78. The average score of social factors of learning for minimum is 2.00, for maximum is 5.00, mean is 3.15 and standard deviation is 0.72. The average score of behavioral forgetting factors for minimum is 1.67, for maximum is 5.00, mean is 3.32 and standard deviation is 0.65. The average score of social forgetting factors for minimum is 2.00, for maximum is 5.00, mean is 3.89 and standard deviation is 0.73. The average score of cognitive forgetting factors for minimum is 1.33, for maximum is 4.67, mean is 3.28 and standard deviation is 0.75.

INFERENTIAL STATISTICS ANALYSIS:

Table 3.1A						
Transformational Leadership * Cognitive learning factors Cross tabulation						
			Cognitive learning factors			Total
			Low Quality	Normal Quality	High Quality	
Transformational Leadership	Normal Quality	Count	12	124	5	141
		% within Cognitive learning factors	85.7%	54.1%	8.8%	47.0%

	High Quality	Count	2	105	52	159
		% within Cognitive learning factors	14.3%	45.9%	91.2%	53.0%
Total		Count	14	229	57	300
		% within Cognitive learning factors	100.0%	100.0%	100.0%	100.0%

Table 3.1B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	46.561 ^a	2	0.000
Likelihood Ratio	53.557	2	0.000
Linear-by-Linear Association	45.689	1	0.000
N of Valid Cases	300		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.58.			

Table 3.1C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.391	0.041	7.331	.000 ^c
Ordinal by Ordinal	Spearman Correlation	0.393	0.041	7.381	.000 ^c
N of Valid Cases		300			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

The cross tabulation of transformational leadership and cognitive learning factors are presented in Table 3.1A. The attributes for transformational leadership are normal and high quality. The attributes for cognitive learning

factors are low, normal and high quality. Result shows that count of normal quality is high as compared to low and high. In Table 3.1B the Chi-Square test has been performed for the Table 3.1A cross tabulation. The value for the Pearson Chi-Square is 46.561, for Likelihood ratio is 53.557 and for linear-by-linear association is 45.689. The DF (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for all Pearson Chi-Square, Likelihood ratio and linear-by-linear association is 0.000. The symmetric measures of chi-square test for the cross tabulation of Table 3.1A are presented in Table 3.1C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.391 and 0.393 respectively. The asymptotic standard error for both Pearson's R and Spearman correlation is 0.041. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 7.331 and 7.381 respectively. The approximate significance (normal approximation) for both Pearson's R and Spearman correlation is 0.000.

Table 3.2A

Transformational Leadership * Social factors of learning cross tabulation						
			Social factors of learning			Total
			Low Quality	Normal Quality	High Quality	
Transformational Leadership	Normal Quality	Count	20	119	2	141
		% within Social factors of learning	87.0%	51.3%	4.4%	47.0%
	High Quality	Count	3	113	43	159
		% within Social factors of learning	13.0%	48.7%	95.6%	53.0%
Total		Count	23	232	45	300
		% within Social factors of learning	100.0%	100.0%	100.0%	100.0%

Table 3.2B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	49.173 ^a	2	0.000

Likelihood Ratio	59.167	2	0.000
Linear-by-Linear Association	48.406	1	0.000
N of Valid Cases	300		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.81.			

Table 3.2C					
Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.402	0.038	7.587	.000 ^c
Ordinal by Ordinal	Spearman Correlation	0.404	0.037	7.617	.000 ^c
N of Valid Cases		300			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

The cross tabulation of transformational leadership and Social factors of learning are presented in Table 3.2A. The attributes for transformational leadership are normal and high quality. The attributes for Social factors of learning are low, normal and high quality. Result shows that count of normal quality is high as compared to low and high. In Table 3.2B the Chi-Square test has been performed for the Table 3.2A cross tabulation. The value for the Pearson Chi-Square is 49.173, for Likelihood ratio is 59.167 and for linear-by-linear association is 48.406. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for all Pearson Chi-Square, Likelihood ratio and linear-by-linear association is 0.000. The symmetric measures of chi-square test for the cross tabulation of Table 3.2A are presented in Table 3.2C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.402 and 0.404 respectively. The asymptotic standard error for Pearson's R and Spearman correlation are 0.038 and 0.037. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 7.587 and 7.617 respectively. The approximate significance (normal

approximation) for both Pearson's R and Spearman correlation is 0.000.

INFERENTIAL STATISTICS ANALYSIS:

Inferential statistical analysis is the process that is used to draw the conclusions and results. This analysis allows users to derive and generalize trends of a larger population on the basis of analyzed samples. Usually it takes information from samples and makes general conclusions about larger group or population.

Table 3.3A

Transformational Leadership * Behavioral forgetting factors cross tabulation						
			Behavioral forgetting factors			Total
			Low Quality	Normal Quality	High Quality	
Transformational Leadership	Normal Quality	Count	14	106	21	141
		% within Behavioral forgetting factors	100.0%	41.9%	63.6%	47.0%
	High Quality	Count	0	147	12	159
		% within Behavioral forgetting factors	0.0%	58.1%	36.4%	53.0%
Total		Count	14	253	33	300
		% within Behavioral forgetting factors	100.0%	100.0%	100.0%	100.0%

Table 3.3B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.098 ^a	2	0.000
Likelihood Ratio	27.487	2	0.000
Linear-by-Linear Association	0.325	1	0.568
N of Valid Cases	300		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.58.

Table 3.3C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.033	0.059	0.570	.569 ^c
Ordinal by Ordinal	Spearman Correlation	0.025	0.061	0.433	.665 ^c
N of Valid Cases		300			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

The cross tabulation of transformational leadership and Behavioral forgetting factors are presented in Table 3.3A. The attributes for transformational leadership are normal and high quality. The attributes for Behavioral forgetting factors are low, normal and high quality. Result shows that count of normal quality is high as compared to low and high. In Table 3.3B the Chi-Square test has been performed for the Table 3.3A cross tabulation. The value for the Pearson Chi-Square is 22.098, for Likelihood ratio is 27.487 and for linear-by-linear association is 0.325. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for both Pearson Chi-Square and Likelihood ratio is 0.000 and for linear-by-linear association is 0.568. The symmetric measures of chi-square test for the cross tabulation of Table 3.3A are presented in Table 3.3C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.033 and 0.025 respectively. The asymptotic standard error for Pearson's R and Spearman correlation are 0.059 and 0.061. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 0.570 and 0.433 respectively. The approximate significance (normal approximation) for Pearson's R and Spearman correlation are 0.569 and 0.665.

Table 3.4A

Transformational Leadership * Social forgetting factors cross tabulation		
	Social forgetting factors	Total

			Low Quality	Normal Quality	High Quality	
Transformational Leadership	Normal Quality	Count	11	54	76	141
		% within Social forgetting factors	100.0%	47.8%	43.2%	47.0%
	High Quality	Count	0	59	100	159
		% within Social forgetting factors	0.0%	52.2%	56.8%	53.0%
Total		Count	11	113	176	300
		% within Social forgetting factors	100.0%	100.0%	100.0%	100.0%

Table 3.4B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.462 ^a	2	0.001
Likelihood Ratio	17.673	2	0.000
Linear-by-Linear Association	6.547	1	0.011
N of Valid Cases	300		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.17.

Table 3.4C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.148	0.055	2.583	.010 ^c
Ordinal by Ordinal	Spearman Correlation	0.119	0.057	2.071	.039 ^c
N of Valid Cases		300			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

The cross tabulation of transformational leadership and Social forgetting factors are presented in Table 3.4A. The attributes for transformational leadership are normal and high quality. The attributes for Behavioral forgetting factors are low, normal and high quality. Result shows that count of high quality is greater as compared to low and normal. In Table 3.4B the Chi-Square test has been performed for the Table 3.4A cross tabulation. The value for the Pearson Chi-Square is 13.462, for Likelihood ratio is 17.673 and for linear-by-linear association is 6.574. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for Pearson Chi-Square is 0.001, for Likelihood ratio is 0.000 and for linear-by-linear association is 0.011. The symmetric measures of chi-square test for the cross tabulation of Table 3.4A are presented in Table 3.4C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.148 and 0.119 respectively. The asymptotic standard error for Pearson's R and Spearman correlation are 0.055 and 0.057. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 2.583 and 2.071 respectively. The approximate significance (normal approximation) for Pearson's R and Spearman correlation are 0.10 and 0.39.

Table 3.5A

Transformational Leadership * Cognitive forgetting factors cross tabulation

			Cognitive forgetting factors			Total
			Low Quality	Normal Quality	High Quality	
Transformational Leadership	Normal Quality	Count	14	101	26	141
		% within Cognitive forgetting factors	58.3%	50.2%	34.7%	47.0%
	High Quality	Count	10	100	49	159
		% within Cognitive forgetting factors	41.7%	49.8%	65.3%	53.0%
Total		Count	24	201	75	300
		% within Cognitive forgetting factors	100.0%	100.0%	100.0%	100.0%

	ting factors				
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Table 3.5B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.669 ^a	2	0.036
Likelihood Ratio	6.762	2	0.034
Linear-by-Linear Association	6.346	1	0.012
N of Valid Cases	300		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.28.			

Table 3.5C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.146	0.056	2.542	.012 ^c
Ordinal by Ordinal	Spearman Correlation	0.148	0.056	2.577	.010 ^c
N of Valid Cases		300			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

The cross tabulation of transformational leadership and Cognitive forgetting factors are presented in Table 3.5A. The attributes for transformational leadership are normal and high quality. The attributes for Cognitive forgetting factors are low, normal and high quality. Result shows that count of normal quality is greater as compared to low and high. In Table 3.5B the Chi-Square test has been performed for the Table 3.5A cross tabulation. The value for the Pearson Chi-Square is 6.669, for Likelihood ratio is 6.762 and for linear-by-linear association is 6.346. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for Pearson Chi-Square is 0.036, for Likelihood ratio is 0.034 and for linear-by-linear association is 0.012. The symmetric measures of chi-square

test for the cross tabulation of Table 3.5A are presented in Table 3.5C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.146 and 0.148 respectively. The asymptotic standard error for both Pearson's R and Spearman correlation is 0.056. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 2.542 and 2.577 respectively. The approximate significance (normal approximation) for Pearson's R and Spearman correlation are 0.12 and 0.10.

Table 3.6A

Transactional Leadership * Cognitive learning factors cross tabulation						
			Cognitive learning factors			Total
			Low Quality	Normal Quality	High Quality	
Transactional Leadership	Normal Quality	Count	4	130	3	137
		% within Cognitive learning factors	28.6%	56.8%	5.3%	45.7%
	High Quality	Count	10	99	54	163
		% within Cognitive learning factors	71.4%	43.2%	94.7%	54.3%
Total		Count	14	229	57	300
		% within Cognitive learning factors	100.0%	100.0%	100.0%	100.0%

Table 3.6B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	50.526 ^a	2	0.000
Likelihood Ratio	60.123	2	0.000
Linear-by-Linear Association	26.384	1	0.000
N of Valid Cases	300		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.39.			

Table 3.6C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.297	0.050	5.370	.000 ^c
Ordinal by Ordinal	Spearman Correlation	0.313	0.049	5.696	.000 ^c
N of Valid Cases		300			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

The cross tabulation of Transactional leadership and Cognitive learning factors are presented in Table 3.6A. The attributes for Transactional leadership are normal and high quality. The attributes for Cognitive learning factors are low, normal and high quality. Result shows that count of normal quality is greater as compared to low and high. In Table 3.6B the Chi-Square test has been performed for the Table 3.6A cross tabulation. The value for the Pearson Chi-Square is 50.526, for Likelihood ratio is 60.123 and for linear-by-linear association is 26.384. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for all Pearson Chi-Square, Likelihood ratio and linear-by-linear association is 0.000. The symmetric measures of chi-square test for the cross tabulation of Table 3.6A are presented in Table 3.6C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.297 and 0.313 respectively. The asymptotic standard error for Pearson's R and Spearman correlation are 0.050 and 0.049. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 5.370 and 5.696 respectively. The approximate significance (normal approximation) for both Pearson's R and Spearman correlation is 0.000.

Table 3.7A				
Transactional Leadership * Social factors of learning cross tabulation				
	Social factors of learning			Total
	Low Quality	Normal Quality	High Quality	

Transactional Leadership	Normal Quality	Count	12	115	10	137
		% within Social factors of learning	52.2%	49.6%	22.2%	45.7%
	High Quality	Count	11	117	35	163
		% within Social factors of learning	47.8%	50.4%	77.8%	54.3%
Total		Count	23	232	45	300
		% within Social factors of learning	100.0%	100.0%	100.0%	100.0%

Table 3.7B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.020 ^a	2	0.000
Likelihood Ratio	25.334	2	0.000
Linear-by-Linear Association	0.114	1	0.736
N of Valid Cases	300		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.02.			

Table 3.7C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.033	0.059	0.570	.569 ^c
Ordinal by Ordinal	Spearman Correlation	0.025	0.061	0.433	.665 ^c
N of Valid Cases		300			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					

c. Based on normal approximation.

The cross tabulation of Transactional leadership and Social factors of learning are presented in Table 3.7A. The attributes for Transactional leadership are normal and high quality. The attributes for Social factors of learning are low, normal and high quality. Result shows that count of normal quality is greater as compared to low and high. In Table 3.7B the Chi-Square test has been performed for the Table 3.7A cross tabulation. The value for the Pearson Chi-Square is 21.020, for Likelihood ratio is 25.334 and for linear-by-linear association is 0.114. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for both Pearson Chi-Square and Likelihood ratio is 0.000 and for linear-by-linear association is 0.736. The symmetric measures of chi-square test for the cross tabulation of Table 3.6A are presented in Table 3.7C. The values for the asymptotic standard error, asymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.033 and 0.025 respectively. The asymptotic standard error for Pearson's R and Spearman correlation are 0.059 and 0.061. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 0.570 and 0.433 respectively. The approximate significance (normal approximation) for Pearson's R and Spearman correlation are 0.569 and 0.665.

Table 3.8A**Transactional Leadership * Cognitive forgetting factors cross tabulation**

			Cognitive forgetting factors			Total
			Low Quality	Normal Quality	High Quality	
Transactional Leadership	Normal Quality	Count	4	113	20	137
		% within Cognitive forgetting factors	16.7%	56.2%	26.7%	45.7%
	High Quality	Count	20	88	55	163
		% within Cognitive forgetting factors	83.3%	43.8%	73.3%	54.3%
Total		Count	24	201	75	300
		% within Cognitive forgetting factors	100.0%	100.0%	100.0%	100.0%

Table 3.8B

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.067 ^a	2	0.000
Likelihood Ratio	29.490	2	0.000
Linear-by-Linear Association	2.363	1	0.124
N of Valid Cases	300		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.96.

Table 3.8C

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	0.089	0.056	1.541	.124 ^c
Ordinal by Ordinal	Spearman Correlation	0.111	0.057	1.922	.056 ^c
N of Valid Cases		300			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

The cross tabulation of Transactional leadership and Cognitive forgetting factors are presented in Table 3.8A. The attributes for Transactional leadership are normal and high quality. The attributes for Cognitive forgetting factors are low, normal and high quality. Result shows that count of normal quality is greater as compared to low and high. In Table 3.8B the Chi-Square test has been performed for the Table 3.8A cross tabulation. The value for the Pearson Chi-Square is 28.067, for Likelihood ratio is 29.490 and for linear-by-linear association is 2.363. The df (degree of freedom) for Pearson Chi-Square is 2, for Likelihood ratio is 2 and for linear-by-linear association is 1. The value for the asymptotic significance (2-sided) for both Pearson Chi-Square and Likelihood ratio is 0.000 and for linear-by-linear association is 0.124. The symmetric measures of chi-square test for the cross tabulation of Table 3.8A are presented in Table 3.8C. The values for the asymptotic standard error, as-

ymptotic error with the assumption of null hypothesis and approximate significance are calculated. The values for the Pearson's R and Spearman correlation are 0.089 and 0.111 respectively. The asymptotic standard error for Pearson's R and Spearman correlation are 0.056 and 0.057. The asymptotic error with the assumption of null hypothesis for Pearson's R and Spearman correlation are 1.541 and 1.922 respectively. The approximate significance (normal approximation) for Pearson's R and Spearman correlation are 0.124 and 0.056.

LIMITATIONS & RECOMMENDATIONS:

There are some limitations of this project which need to be discussed. This study examine fragmentary data, result will be more different in other circumstances. Second, in this project, only two styles of leadership personalities are discussed although there are more attributes of leadership which can be discussed in future research. Furthermore, in this research we have used a quantitative approach that has limited the evaluation of variables. In future different data collection tools can be used to present different perspectives as in this study only the perspective of teachers are presented. In future for this study data can be collected from different sectors, industries and from different countries.

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