

UNDERSTANDING THE ROLE OF KNOWLEDGE-ORIENTED LEADERSHIP AND KNOWLEDGE SHARING IN IMPROVING PERFORMANCE OF UNIVERSITY TEACHERS

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ABSTRACT

Education is considered as a key factor in the progress of societies and nations. Higher Education Institutions (HEIs) are vital to this progress by promoting knowledge creation and economic growth. The current research was designed to study knowledge-oriented leadership, knowledge sharing, and employee performance in university teachers. In this study, a quantitative correlational research design was utilized. The sample of the study was comprised of (N=300) university teachers from the public and private sector of Lahore with at least 1 years of experience including both male and female from various universities through purposive sampling. In this study, Pearson Product Moment Coefficient of Correlation Analysis, Multiple Linear Regression Analysis, Hayes PROCESS Parallel Mediation Analysis, and independent sample t-test were applied to analyze the data through SPSS 26. The study found significant correlations among the variables. The results of multiple linear regression analysis showed that knowledge-oriented leadership, and knowledge sharing (knowledge donating and knowledge collecting) were significant positive predictors of employee performance. The results of parallel mediation analysis showed that knowledge sharing (knowledge donating and knowledge collecting) significantly mediated between knowledge-oriented leadership and employee performance which means that university teachers with knowledge-oriented leadership relying on the culture of knowledge sharing exhibit better employee performance. The findings of this research hold significant implications for Pakistan's education sectors by enhancing teacher's expertise in knowledge-oriented domains which will ultimately contribute in student's academic achievement and career success.

Keywords: Higher Education Institutions, Teachers, Knowledge-oriented leadership, Knowledge Sharing, Knowledge Donating, Knowledge Collecting, Employee Performance.

INTRODUCTION

Education is an essential factor for human needs and it does not require any further clarification (Permana et al., 2021). It has been observed that the countries which give the highest priority to education due to its compatibility with other sectors have been seen to be the most advanced and successful in the world (Azeem et al., 2021). In the development of societies, higher education plays an important role by educating future professionals, religious scholars, business leaders,

social thinkers, and politicians which serve the society to strengthen its values and develop its resources (Naqvi, 2014). Moreover, Higher Education Institutions (HEIs) are considered as an organization that mainly focus on creating, developing, and sharing knowledge and they do this through research, teaching, learning, and transferring knowledge to others (Mahdi et al., 2019). The available statistics on Pakistan education indicate that the number of teachers

reached 185, in both public and private universities, with a total of 58.7 thousand teachers working in higher education institutes (Hanafi & Abuzar, 2021). According to Shair et al. (2024) to maintain a good quality of higher education universities need to acquire modern facilities to help students and teachers in their learning and teaching process. The success of any educational institution greatly relies on the performance of its teachers. In today's world, teachers are always encouraged to keep learning and stand out. Many experts agree that teachers play the most crucial role in education. So, it is not surprising to be said that teachers are seen as the foundation of a successful education system (Norouzpour & Pourmohammadi, 2019). According to Wilson (2024), the United Kingdom has the world's most advanced education system due to its well-structured curriculum, experienced teachers, and modern resources but unfortunately, developing countries like Pakistan face challenges in providing quality education, including inadequate resources, poor teacher training, and limited access to technology (Hussain et al., 2023). Along with this, Punjab Higher Education Commission (PHEC), Pakistan published its annual report in 2023, and according to it there is a high need to address ever-increasing demands of our education system such as reducing achievement gaps, adopting evidence-based practices, meeting appropriate annual growth targets, and meeting academic needs and managing special needs students as well as maintaining an increasing amount of teaching and materials.

In Higher Education Institutions, Knowledge-oriented leadership (KOL) plays an important role (Manzoor et al., 2023). KOL helps create a teamwork environment where university faculty members can work together effectively and this leads to building trust among them, which can encourage positive behaviours like sharing knowledge and producing good research (Fullwood & Rowley, 2017). Additionally, KOL promotes the use of external knowledge, which rewards sharing and applying knowledge, leading to better academic quality, valuable research partnerships, quick responses, and improved curriculum development (Tan, 2016). Furthermore, KOL helps create a culture of learning that helps organizations succeed (Choudhary et al., 2013). In any organization, KOL plays an essential role in

creating an environment where knowledge is shared freely and leads towards the satisfaction and productivity of both the individual as well as the organization (Sahibzada et al., 2020). Skyrme (2000) was the first scholar who introduced the term Knowledge-oriented leadership which is also known as the Knowledge lens in his book "Developing a Knowledge Strategy". After Skyrme, Donate and De Pablo (2015) started to work on knowledge-oriented leadership and they inspired many people through their work and measured KOL by combining the elements of transformational leadership styles (people-oriented leadership style) and transactional leadership styles (task-focused leadership style). They believed that leaders should need to possess both of the leadership styles rather than relying on just one leadership style. Donate et al. (2022) defined KOL as a leader who actively seeks and develops new knowledge and encourages their members to do the same which creates an environment where the members work together and share their knowledge with each other. When a leader shows a clear interest in learning and sets an example, it inspires employees to follow their leader and expand their own knowledge (Fauzi et al., 2023). Moreover, Shamim et al. (2017) went further to add the concept of KOL, in which they included additional leadership behaviours and defined it in such a way that includes consulting, supportive, stimulating, knowledge diffusion, delegating, recognizing, mentoring, facilitating, providing vision, rewarding, innovating role modelling, intellectual stimulation and suggested that by adopting these behaviours the leaders can promote a culture of learning, collaboration, and innovation. The goal for knowledge-oriented leaders is to create an environment that values learning and growth. In addition, KOL also influences knowledge sharing where team members can exchange, provide, and receive knowledge which promotes teamwork and unity in the organization (Aghababaei, 2024).

In Higher Education Institutions, knowledge sharing plays an important role (Adamseged & Hong, 2018). Through knowledge sharing, teachers can understand the students in a better way without considering any discriminative factors including age and background etc. Through knowledge sharing, different ideas and values are added in the institute and it helps to transfer knowledge among people with different roles.

Thus, it not only plays an important role in organization's but in the academic and institutional culture as well (Upadhyay, 2023). It is an active process which includes knowledge donating and knowledge collecting. Knowledge donating refers to sharing one's own knowledge with others while knowledge collecting refers to the process of acquiring knowledge from others (Van den Hooff & De Rider, 2024). If an individual is involved in both processes, he or she can gain new knowledge (Camelo-Ordaz et al. 2011). Both require intrinsic motivation to seek advice and knowledge through communication (Alhady et al., 2011). In this study, knowledge sharing was viewed as a combination of knowledge donating and knowledge collecting. Moreover, Knowledge sharing affects employee performance and it is considered as an asset that contributes to the organisation's success (Hong et al., 2022). With the help of knowledge sharing, an employee's performance can be increased. However, if knowledge sharing is poor so employee's performance will be affected in a negative way. Therefore, the implementation of knowledge Sharing is important in the domain of any organization (Arfan & Trisninawati, 2023).

For an organization's success, employee performance is essential e.g. a teacher's performance is vital because they are part of education institutes, serving as a role model. They are guiding students to understand themselves and the world in a better way (Aroosiya & Ali, 2013). Therefore, an employee performance refers to how well they do their jobs, based on the set standards. For example, a teachers' performance refers to how well they do their jobs and how their work align with the standards of the institute (Hermanto & Srimulyani, 2022). According to Robbins and Coulter (2017), employee performance is a measure of an employee's effort to achieve the institute's goals. Therefore, employee performance comprises quality of work, punctuality, accomplishment, innovation and knowledge (Mandiyasa et al., 2022). An individual can achieve the objectives and goals if he performs well (James et al., 2012). In short, employee performance is the outcome of both the quality and quantity of work (Abdelhay et al., 2023).

Pakistan's higher education system has three main levels which include bachelor, postgraduate, and further specialized courses like M.Phil. and PhD. According to Cronin (2000), as an institution that

creates knowledge, a university is the ideal place to practice knowledge management. Universities are supposed to be those kinds of institutions in which sharing knowledge is done freely among academicians. Pakistan's higher education system has some big issues such as there isn't enough money, many teachers aren't qualified, and the teaching methods are old-fashioned. This is a big concern because it's holding Pakistan back from becoming the best it can be (Meer, 2023). This sector suffers from inadequate financial issues, low efficiency level, poor management, supervision and teaching (Azeem et al., 2021). Nowadays, the knowledge sharing hardly takes place within the universities (Ridzuan et al. 2008). The apparent problem in academia is low desire or willingness to share knowledge (Ramayah et al., 2013). Mostly, people refuse to share knowledge because they are driven by their instincts of self-preservation and think of knowledge as a very valuable commodity that can never be given away free. Many academicians fail to realize that, for institutions of higher learning, effective scholarly collaboration would improve the effectiveness of each faculty member, not the other way around. Ramayah and colleagues (2013) believed that an institution's greatest assets are its intellectual property, circulated knowledge, and academic staff's experience. In addition, with the government's direction to make society more knowledge-based, there are now ever-increasing faculty demands of academic institutions, especially public universities, to share quality resources and expertise. Therefore, knowledge sharing in academia becomes an issue of concern over time. This consequently raises the fundamental question in knowledge sharing phenomena among academicians: if knowledge-sharing appears to be a difficult behaviour to perform, what then motivates academicians to share their knowledge with peers and the surrounding communities?

This research aims to fill the gap in the literature to find out those leadership characteristics that would help knowledge-based institutions to improve their knowledge sharing and eventually employee performance. Moreover, this is the first research study in which effectiveness of knowledge-oriented leadership for bringing improvements in employee performance in the field of higher education sector is revealed. Another major concern is that leadership styles

practiced in traditional industrial economy do not stand the chance of meeting the requirements needed for this knowledge-based industry. Williams and Sullivan (2011) are not convinced by the value created from traditional types of leadership, particularly in regard to learning. Through the combination of transactional and transformational leadership behaviors, they propose an alternative approach to learning leadership. The academic sectors dynamics are distinct from those of other industries. Teachers are expected to handle demanding roles in teaching and curriculum development simultaneously, which puts pressure on them to deliver high-quality work (Hoodbhoy, 2021). By the findings of above discussed researches, it is stated that by encouraging knowledge sharing, higher education institutions can enhance their collective knowledge base which will contribute to organizational and individual learning, and ultimately improves employee performance. When teachers are knowledge-oriented and believe in sharing and collecting knowledge with their colleagues, they can play an essential role in shaping students who will further work on future knowledge trends and contribute in knowledge-based economy. Therefore, studying the factors that influence teaching staff to share their knowledge is an important strategy for higher education institutions to be able to prosper in a knowledge-based economy based on the resources of the knowledge-sharing institutions. This way, we empower students as leaders and innovators for economic development and prosperity of any society in the future.

Research Objectives

- To determine the relationship between knowledge-oriented leadership, knowledge sharing, and employee performance in university teachers.
- To examine the mediating role of knowledge sharing (knowledge donating and knowledge collecting) between knowledge-oriented leadership and employee performance of university teachers.
- To explore the role of demographic variable (public and private sector) on our study variables.

Literature Review and Hypotheses Development

Theoretical basis

Theoretical arguments are important to support the research variables and build conceptual frame work for future researches (Gürlek & Cemberci, 2020). Thus, the research model is constructed based on the theories described in this subsection. In order to provide a theoretical support in this study, knowledge-based theory, resource-based view, contingency theory of leadership, and social learning theory were adapted. In accordance with Grant's (1996) knowledge-based theory, it posits that a firm can outcompete its competitors. For instance, the knowledge-oriented leaders view knowledge as the greatest strategic resource available whereby leaders could enable their employees to perform better and gain competitive advantage. In this turn, leadership is the factor that greatly contributes to the success in managing knowledge resources and knowledge sharing for better performance in employees. This is because good leadership enhances the effective utilization of knowledge by both the leaders and subordinates (Naqshbandi & Jasimuddin, 2018). In accordance with Bandura's theory of social learning (1977), leaders act as role models that influence the behavior patterns of their followers (Shamim et al., 2019). For example, when leaders are inspired by their role models and imitate their behavior, they start collecting and donating knowledge and developing their capabilities in order to improve their performance. In this connection, knowledge-oriented leaders get inspired through their role models and shape their behavioral patterns according to them, such as by engaging in appropriate behavior to create, share, and apply new knowledge, we will help enhance knowledge sharing, resulting in better performance. In accordance with Fiedler (1964) the contingency theory of leadership, suggests that the effective leaders adapt their behavior to suit the situation. Consequently, leadership in knowledge-intensive industries will work best if it is knowledge-oriented, creating a culture of sharing and collaboration in the entire organization (Zhang & Guo, 2019). With these key leadership qualities of a leader, they would perform well in their leadership role and create an environment where employees could learn from each other and share their knowledge with others. Leaders possessing

such expertise are very important in managing knowledge resources and facilitating successful knowledge sharing towards enhancing the performance of the employees. In accordance with Meso and Smith (2000) the Resource-based View, asserts that the development of resources and capabilities results in organizational effectiveness; the performance of teachers is hence dependent upon knowledge-oriented leaders' resources and capabilities. The expertise, experience, and networks of these leaders are important resources to enhance their individual performance. Knowledge will enable leaders to keep developing new resources: innovative teaching methods, research, and establishing strong relationships, which end in employee performance. Teachers can share knowledge with colleagues and learn from others in the creation of a collaborative environment where they can exchange ideas and develop new competencies. Through sharing knowledge with others, leaders create a culture of learning and hence help employees to perform better which will lead an organization towards success. Knowledge-based leadership and knowledge sharing in the organization unlock potentials in teachers in the universities, thus improving their performance while fostering innovation; therefore, a competitive advantage in the education sector can be achieved. On the basis of the theoretical background stated above, this study theorizes a model to explain the link between KOL, knowledge sharing, and employee performance in university teachers.

Knowledge-oriented leadership (KOL) and Employee Performance

KOL is defined as a leader's capacity to create, manage, and apply organisational knowledge in order to accomplish higher goals (Sahibzada et al., 2021). According to Drucker (1998), most of the basic assumptions on organizations that are taught and used under the management's name become out of date. These presumptions extend back at least fifty years. Researchers are increasingly inclined to agree that modern management practices preserve elements of the industrialization era (Manville & Ober, 2003). As noted by Uhl-Bien and colleagues (2007), within the leadership literature, there is a call for new models and styles of leadership that will suit the features of the knowledge age. On the other hand, Fiedler's (1964)

contingency theory of leadership posits that situations and leadership style should be aligned in order to achieve superior results in performance. This research addresses one such kind of leadership: knowledge-oriented leadership, analyzed against the background of circumstances found within the knowledge-based industry. In order to do so, it applies the presuppositions of the contingency theory of leadership. Knowledge-oriented leadership may positively correlate with employee performance. Previous researchers have identified positive relationship between them (Putra et al., 2023; Fauzi et al., 2023; Rehman & Iqbal, 2020). The previous researches suggest that KOL is associated with better employee performance such as Knowledge-oriented leaders give their staff members opportunities for training and development so they can advance their knowledge and abilities. Because they perceive their employee to be interested in their professional development, this can also boost job happiness and loyalty (Gürlek & Cemberci, 2020). They honor and reward workers who perform very well, which inspires other workers to reach new heights of performance. By offering feedback and acknowledgement, knowledge-oriented leaders can enhance work performance and boost employee engagement and happiness (Raudeliūnienė & Kordab, 2019). Leaders that prioritize knowledge instill a feeling of direction and significance in their business. Individuals' motivation and engagement levels are raised when they believe that their work is meaningful and advances a greater cause, which improves job performance (Mariam et al., 2022). The relationship between KOL and worker performance is contingent upon a number of factors, such as creating a culture that fosters knowledge exchange, providing sufficient resources and assistance, recognizing and rewarding exceptional work, and fostering a feeling of mission and importance within the company (Liu et al., 2022). On the basis of the above discussion, a hypothesis is formulated:

H₁: Knowledge-oriented leadership is positively related with employee performance of university teachers.

Knowledge-oriented leadership (KOL) and Knowledge Sharing

Van den Hooff and de Ridder (2004) describe knowledge sharing as two active processes that include knowledge donation and knowledge collecting. Knowledge donating involves sharing one's own knowledge with others, while knowledge collecting involves seeking and acquiring knowledge from others. It is like a social exchange theory in which we share our knowledge with others, we expect something in return, such as recognition, trust, or access to other's expertise (Akgunduz et al., 2018). Moreover, experienced leadership follows motivating employees to apply their background skills by guiding learning through motivation and support and promotes an environment of learning and acceptance by acting as a role model with transformational leadership. Thereby, the knowledge-oriented leader, therefore, challenges the employees to develop knowledge behavior and sets mechanisms for how knowledge can be acquired and integrated, thereby enhancing a mechanism for the transfer, storage, and application of knowledge (Donate & de Pablo, 2015). In contrast, transactional knowledge-oriented leaders reward knowledge creation, sharing and use but abstain from promoting knowledge use (Shamim et al., 2019).

In order to align the expectations of employees with the set goals of an organization, knowledge-oriented leaders promote effective communication that provides the employees with a platform for communication (Naqshbandi & Jasimuddin, 2018). This communication platform bridges the gaps in communication among knowledge workers and hence improves their work efficiency (Zhang & Guo, 2019). Leaders need to influence and inspire employees to develop their knowledge-based behaviors for effective knowledge dissemination. Sometimes, employees are not receptive to creating, sharing, and using knowledge (Vendrell-Herrero et al., 2019). At all times, managers must give employees clear definition of a job they want them to do as well as explain what they want from them. As such, communication is paramount for sharing knowledge as reported by several researchers (Yap et al., 2019). In order to encourage knowledge sharing, the knowledge-oriented leadership will encourage employee's learning goals. In turn, leaders who focus much on

personal learning and development encourage employees to learn more with the greatest ambitions. Managers provide appropriate support to employees such as guidance, training, support, and services (Banmairuoy et al., 2022) and in this positive environment employees are willing to find and share knowledge with their colleagues, thus achieving growth and success (Huang et al., 2024). Knowledge management is beneficial for knowledge sharing. Therefore, previous researchers have identified active and effective methods (Aghababaei, 2024; Nurhidayati & Zaenuri, 2023; Shariq et al., 2019). This study shows that knowledge-oriented leadership is the best leadership style for knowledge sharing because knowledge sharing is one of the characteristics of knowledge leadership, which uses various methods to promote knowledge sharing between individuals (Mohsenabad & Azadehhdel, 2016). In accordance with knowledge-based theory, managers can encourage knowledge sharing through knowledge sharing (Singh et al., 2019). There are few studies on the relationship between knowledge-oriented leadership and knowledge sharing that shows a positive relationship between knowledge-oriented leadership and knowledge sharing. On the basis of the above discussion, a hypothesis is formulated:
H₂: Knowledge-oriented leadership is positively related with knowledge sharing (knowledge donating and knowledge collecting) of university teachers.

Knowledge Sharing and Employee Performance

Employee performance refers to the actions employees take to complete their work tasks (Shmailan, 2016). Employee performance feedback is also important for the organization's sustainability and development (Kaikhosroshvili, 2023). There are many factors that affect employee performance such as talent, knowledge, job creation, attitude, motivation, leadership, leadership, job satisfaction, work environment, trust, commitment and discipline workforce and social organization (Casmir, 2016). In addition, knowledge sharing will have a positive effect on employee performance because knowledge sharing is an important aspect of organizational relations and can lead to increased performance and efficiency (Hong et al., 2022). In addition, as

knowledge sharing improves and increases, employee productivity increases, and if knowledge sharing is weak, employee productivity decreases. If knowledge sharing is done well, employee performance can be increased (Arfan and Trisninawati, 2023). Knowledge-based theory assumes organizations that have the ability to effectively manage knowledge resources will perform better than any other organization that doesn't have the same capacity in managing its knowledge resources. In that regard, it is stated by the knowledge-based theory that organizational performance emanates from the capacity of an organization to generate, combine, reproduce, and utilize knowledge (Shujahat et al. 2018). The management of resources intimates that with proper management of the knowledge resources, there will be increased innovation. According to Shujahat et al. (2019), knowledge is handled as a strategic resource in the new economic epoch, and it is very vital for innovation and competitiveness to enterprises. Previous researchers found the process active and efficient (Suryanto et al., 2023; Rohim and Budhiasa, 2019). This study shows that employees can exchange ideas about personal development or information from outside that can increase their knowledge and skills. On the basis of the above discussion, a hypothesis is formulated:
H₃: Knowledge Sharing (knowledge donating and knowledge collecting) is positively related with employee performance of university teachers.

Mediating role of Knowledge Sharing

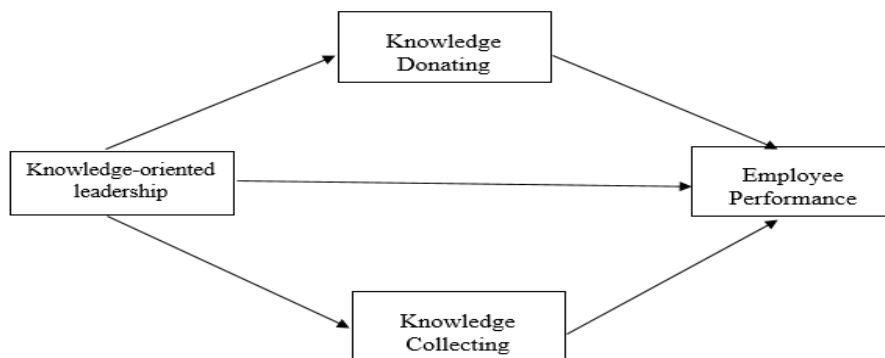
According to Bandura (1977), the social learning theory posits that the members of an organization can learn things by following their leaders and observing them. Therefore, employees can undertake more knowledge behavior by emulating experienced leader's behavior. It is therefore thought that knowledge sharing facilitates knowledge-sharing behavior by encouraging knowledge walks and wisdom talks, among others. In doing so, institutions develop an environment

whereby organizational members, especially leaders, are able to undertake knowledge-based behaviors (Naqshbandi & Jasimuddin, 2018). In accordance with the knowledge-based theory, it is believed that employee performance is not just about creating knowledge, but also about applying it within an organization for maximum effectiveness (Shujahat et al., 2019). Moreover, according to Grillitsch and their colleagues (2019) it has been shown that knowledge application and sharing enhance not only employee performance, but also the overall performance of an organization as well. Knowledge sharing is a crucial antecedent of employee performance (Jami Pour & Asarian, 2019). Moreover, leadership that emphasizes knowledge-oriented practices is crucial to creating and improving knowledge sharing (Politis, 2001). Leaders with knowledge-oriented approaches facilitate sharing and promote learning, rewards, and knowledge behaviors (Farrell & Coburn, 2017). By applying and sharing knowledge, employees are able to gain new capabilities and perform better. Thus, it was expected that knowledge-oriented leadership would enhance the employee performance in terms of knowledge sharing. According to Birasnav (2014), knowledge management mediates the relationship between transformational leadership and organizational performance. Knowledge management means creating, storing and sharing knowledge to help the employee and organizations to perform better (Jean-Paul & Shih, 2011). And knowledge sharing is a key element of knowledge management process. On the basis of literature, this hypothesis can be formulated that:

H₄: Knowledge Sharing (knowledge donating and knowledge collecting) mediates the positive relationship between knowledge-oriented leadership and employee performance.

H₅: There will be a significant effect of demographic variables (private and public sector) on study variables.

Figure 1
Research Model



Methodology Data Collection and Sample

The current study employed a quantitative descriptive approach, utilizing survey methodology for data collection. Through cross-sectional design data was taken from university teachers working in both public and private sectors of Lahore with at least 1 year of experience. Cross-sectional design was used because it was easier to capture the relationships between these variables at a single point in time (Creswell & Creswell, 2018). According to Roscoe (1975), a sample size exceeding 30 but remaining below 500 is appropriate for most behavioral studies to avoid Type II error (Sekaran & Bougie, 2016). Therefore, the total sample consisted of 300 teachers including both male and female randomly selected from 3 public and 3 private sector universities of Lahore. The institutional heads and teachers were briefed about the research then the survey questionnaires were distributed. Participants were assured about the factors like confidentiality, their right of withdrawal, and their right to contact the researchers.

Measures

Information regarding participants' age, gender, qualification, marital status, year of experience, nature of job, position, and monthly income was collected. To assess knowledge-oriented leadership, a scale consisting of 6 items devised by Donate and Sánchez De Pablo (2015) was utilized. The knowledge sharing of university teachers was evaluated using the instrument devised by Hooff and Ridder (2004) specifically

designed for this purpose. This instrument comprises 10 items designed to measure two dimensions: 6 items for knowledge donating and 4 items for knowledge collecting. The scale which measured employee performance of university teachers was a 6-item scale adapted from the work of Sheth (2018).

Data Analysis

Descriptive statistics were examined before testing the data for reliability, correlation, regression, mediation and independent sample t-test. Table I presents the descriptive statistics for the study.

Results

Table 1 shows sample of the study was between age range of less than 25 years to 46 years or more which was divided into four categories less than 25(7.3%), 26-35(33.0%), 36-45(39.7%) and 46 or more (20.0%). The gender of the participant was divided into two categories male (46.3%) and female (53.7%). The level of qualification was masters (50.0%), and PhD (50.0%). The marital status was divided into two categories that include unmarried (29.3%) and married (70.7%). The years of experience was divided into three categories less than 5 years (7.7%), 5-10 years (23.0%), and more than 10 years (69.3%). The teachers were working in either the private sector (50.0%) or public sector (50.0%). The position of the participant was also divided into four categories lecturer (46.3%), assistant professor (25.3%), associate professor (16.0%), and professor (12.3%). The monthly income of the

participants was divided into three categories 50,000 to 100,000(24.0%), 100,000-150,000(37.7%), and 150,000 and more (38.3%).

Table 1
Demographics (N=300)

Variable	n	%
Age		
Less than 25yrs	22	7.3
26-35yrs	99	33.0
36-45yrs	119	39.7
46yrs or more	60	20.0
Gender		
Male	139	46.3
Female	161	53.7
Qualification		
Masters	150	50.0
PhD	150	50.0
Marital Status		
Unmarried	88	29.3
Married	212	70.7
Years of Experience		
Less than 5yrs	23	7.7
5-10yrs	69	23.0
More than 10yrs	208	69.3
Nature of Job		
Private Sector	150	50.0
Public Sector	150	50.0
Position		
Lecturer	139	46.3
Assistant Professor	76	25.3
Associate Professor	48	16.0
Professor	37	12.3
Monthly Income		
50,000 to 100,000	72	24.0
100,000 to 150,000	113	37.7
150,000 and above	115	38.3

Note. N = 300, % = percentage.

Table 2 represents descriptive statistics, including the mean, standard deviation and correlation coefficient. Results in correlation matrix table 2 shows that all the variables used in research are correlated with each other. Knowledge-oriented leadership has moderate positive correlation with knowledge donating ($r = .54, p < .01$), also it has a low positive correlation with knowledge collecting ($r = .48, p < .01$) and it also has a low positive correlation with employee performance ($r = .47, p < .01$). Knowledge Donating has a moderate positive correlation with

knowledge collecting ($r = .56, p < .01$) and has a low positive correlation with employee performance ($r = .43, p < .01$). Knowledge Collecting has a low positive correlation with employee performance ($r = .39, p < .01$). Moreover, the Cronbach's Alpha coefficient was measured to check the reliability of the scales. The Cronbach's alpha reliability coefficient was satisfactory for all the scales, ranging from .75 to .80.

According to the first hypothesis, all study variables exhibit positive correlation e.g., Knowledge-oriented leadership, Knowledge Sharing (knowledge donating and knowledge collecting) and Employee Performance.

Table 2
Descriptive Statistics & Correlation Analysis (N = 300)

	M	SD	1	2	3	4
1 KO	35.5	4.2	-	.54*	.48*	.47*
L	5.0	5.0		*	*	*
2 KD	25.0	3.5		-	.56*	.43*
3 KC	16.0	2.7			-	.39*
4 EP	4.0	4.0				-
	26.3	2.8				
	3.0	3.0				

Note. ** $p < .01$; KOL = Knowledge-oriented Leadership Scale, KD = Knowledge Donating, KC = Knowledge Collecting, EP = Employee Performance Scale.

Regression Analyses

The table 3 shows multiple linear regression was conducted on knowledge-oriented leadership, knowledge donating and knowledge collecting as an independent variable, and employee performance as dependent variable. It shows that all the study variables have significant relationship which means that employee performance is successfully predicted by knowledge-oriented leadership, knowledge donating, and knowledge collecting. The R^2 value in table shows that predictor variables explained 27% variance in the outcome variable with $F(3,296) = 37.96, p < .001$. The results suggested that knowledge-oriented leadership positively predicted employee

performance ($\beta = .29, p < .001$), knowledge donating positively predicted employee performance ($\beta = .18, p < .001$), and knowledge collecting also positively predicted employee performance ($\beta = .14, p < .001$).

Table 3

Multiple Linear Regression of Knowledge-oriented Leadership, Knowledge Donating and Knowledge Collecting as predictors of Employee Performance as dependent variable. (N = 300)

Model	B	SE	β	t	p	95% CI
Constant	13.15	1.25		10.47	.00	[10.68, 15.63]
KOL	.19	.04	.19	4.8	.00	[.11, .27]
KD	.15	.05	.15	4		[.04, .25]

KC	.15	.06	.1	2.8	.00	[.02, .27]
R ²	.27			8	9	4
			.1	2.3	.01	
			4	8	8	

Note. KOL = Knowledge-oriented Leadership Scale; KD = Knowledge Donating; KC = Knowledge Collecting; CI = Class Interval.

Mediation Analysis

Parallel mediation analysis was done on PROCESS MACRO (version 4.2). Hayes (2008) bootstrapping method (with 5000 bootstrap samples and bias-corrected confidence intervals (BC confidence level=95)) was used by selecting Model 4.

Figure 2:

Mediation Model of Knowledge-oriented leadership, Knowledge Donating, Knowledge Collecting and Employee Performance

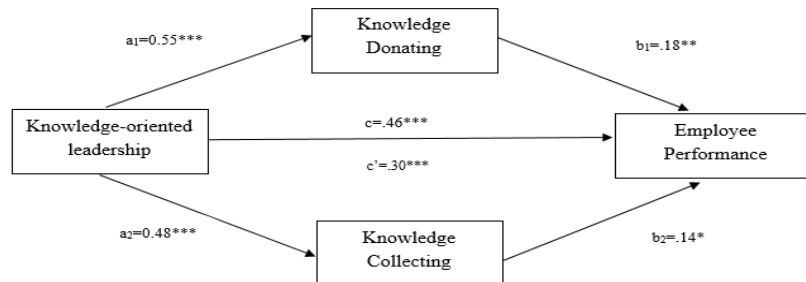


Table 4 illustrates that knowledge-oriented leadership was a significant predictor of employee performance ($p < .001$). Knowledge donating and knowledge collecting as mediators were also significant predictors of employee performance ($p < .001$). The total effect of knowledge-oriented leadership on employee performance was also significant ($\beta = .47$; CI 95% ($LL = .24, UL = .37$)). The total indirect effect of knowledge-oriented leadership on employee performance was significant ($\beta = .17$; CI 95% ($LL = .06, UL = .28$)). The results are consistent with our theoretical

model and hypothesis and suggests that both knowledge donating and knowledge collecting mediates a positive relationship between knowledge-oriented leadership and employee performance. From these results, it can be inferred that knowledge donating and knowledge collecting is an internal mechanism that leads to an increase in the performance of university teachers if they have leadership qualities and know how to excel in their roles. The total effect (c), direct (c'), and indirect ($a_1 * b_1, a_2 * b_2$) are shown in figure 2.

Table 4

Mediating Effect of Knowledge Donating and Knowledge Collecting on Knowledge-oriented leadership and Employee Performance (N =300)

Predictor	KD			KC			EP		
	B	SE	t	B	SE	t	B	SE	t
Constant	8.86	1.44	6.14**	5.38	1.17	4.60**	15.30	1.22	12.58***
KOL	0.55	0.04	11.29***	0.48	.03	9.52***	.30	0.04	4.83***
KD							.18	.05	2.90**
KC							.14	.06	2.38*
R ²		.30			.23			.27	
	F (1.00, 298) =127.5, p<.001			F (1.00, 298) =90.70, p<.001			F (3.00, 296) =37.96, p<.001		
	Bootstrapping effect			SE			95% CI (LL, UL)		
Total effect	.47			.03			.24, .37		
Indirect effect total	.17			.05			.06, .28		
Indirect effect via KD	.10			.04			.01, .18		
Indirect effect via KC	.07			.03			.00, .14		

Note. B= Unstandardized coefficients; SE= Standard error; CI= Class Interval; LL= Lower limit; UL= Upper limit; KOL = Knowledge-oriented leadership; KD = Knowledge Donating; KC = Knowledge Collecting; EP = Employee Performance.

Independent sample t-test

Independent sample t-test was computed to do comparison of mean differences of private sector and public sector university teachers (nature of job differences) on the basis of knowledge-oriented leadership, knowledge donating, knowledge collecting, and employee performance.

Table 5 shows independent sample t-test that was run to test the hypothesis that there will be significant difference between private and public sector teachers on knowledge-oriented leadership, knowledge donating, knowledge collecting, and employee performance. The results revealed

significant mean differences on knowledge-oriented leadership with $t(298) = 2.26, p < .001$. Findings showed that knowledge-oriented leadership is more prevalent in private sector ($M = 36.0, SD = 3.73$) as compared to public sector ($M = 34.9, SD = 4.66$), with mean difference of 1.10. The value of Cohen’s d was 0.26 which indicated small effect size. The results revealed non-significant differences on knowledge donating with $t(298) = .947, p > .001$. Similarly, non-significant differences were found on knowledge collecting with $t(298) = .342, p > .001$ as well as on employee performance with $t(298) = -.632, p > .001$.

Table 5

Independent sample t-test of Nature of Job in Knowledge-oriented leadership, Knowledge Donating, Knowledge Collecting, and Employee Performance (N=300)

Variable	Private Sector		Public Sector		t (df)	p	Confidence Interval		Cohen's d
	M	SD	M	SD			LL	UL	
KOL	36.0	3.73	34.9	4.66	2.26	.02	.14	2.06	0.26
KD	25.1	3.52	24.9	3.57	.342	.73	-.66	.94	
KC	16.5	2.63	16.2	2.85	.947	.34	-.32	.92	
EP	26.2	2.94	26.4	2.71	-.632	.52	-.85	.43	

Note. * $p < .05$, *** $p < .001$; KOL = Knowledge-oriented leadership; KD = Knowledge Donating; KC = Knowledge Collecting; EP = Employee Performance.

Discussion

Many scholars and experts believe that education is one of the major pillars of human society and that it is built by teachers (Norouzpour & Pourmohammadi, 2019). Nowadays, higher education is seen as an investment in society's economic development and social well-being (Tilak, 2015). The higher education system in Pakistan has been undergoing significant transformations aimed at enhancing quality and fostering innovation in teaching and research. Despite these efforts, challenges remain in effectively leveraging knowledge as a critical resource for improving employee performance as well as organizational performance in industry and academia (Shah & Kant, 2020). Knowledge sharing is also considered as an important aspect of knowledge-oriented leadership where team members share knowledge freely which promotes unity and teamwork and enhance their performance (Sahibzada et al., 2021). This study aims to examine the relationship between knowledge-oriented leadership, knowledge sharing (knowledge donating and knowledge collecting) and employee performance in university teachers. For this purpose, this research presents five hypotheses. Also, the descriptive characteristics of the sample used in this study are shown in Table 2.

Additionally, the reliabilities of the scales used to measure the study variables were also computed and results are presented in Table 2, which indicate that Cronbach's alpha reliability coefficients were satisfactory for all the scales ranging between 0.75

and 0.80. Since many statisticians suggested that alphas in the .65 to .80 range can be considered acceptable as highlighted by (DeVellis, 2003; Vaske, 2008). Following Hinkle et al. (1979) correlation coefficients were reported. According to this study, a positive relationship was found among the study variables. The study resulted in a significant positive relationship between knowledge-oriented leadership, knowledge sharing as knowledge donating and knowledge collecting, and employee performance. The findings of the study were supported by several studies (Rehman, 2020; Pura et al., 2023; Sanosra, 2020; Rohim & Budhiasa, 2019; Javadi et al., 2012) in literature review. All these studies showed significantly positive relationship between knowledge-oriented leadership, knowledge sharing (knowledge donating and knowledge collecting), and employee performance. These studies are explained in regression analysis.

The above discussed findings of the correlation study were further analyzed using multiple linear regression and mediation analyses. To explore the predicting role of, knowledge-oriented leadership, knowledge sharing (knowledge donating and knowledge collecting) on employee performance, the H_1 , H_2 and H_3 hypotheses of the study were tested respectively. Multiple linear regression analysis showed that 27% of the variance is explained by knowledge-oriented leadership, knowledge donating, and knowledge collecting which means that all the study variables are positive predictor of employee performance (see Table 3). This finding was supported by the work

of Rehman (2020) that clearly stated that knowledge-oriented leadership has a positive and significant effect on employee performance. Another study of Pura et al. (2023) also supported the same results that suggested that the knowledge-oriented leadership significantly impacts organizational fit and employee performance, with organizational fit serving as a mediating factor that enhances employee performance. Sanosra and their colleagues (2020) conducted a research study to assess the role of knowledge sharing and leadership style in enhancing employee performance with work culture as an intervening variable and found that knowledge sharing is affected positively and significantly by employee performance. Similarly, another study conducted by Rohim & Budhiasa (2019) stated that work environment had positive and significant implications for employee performance. Furthermore, knowledge sharing process has a significant and direct influence on employee performance (Javadi et al., 2012). From the above findings, it is concluded that leaders whether in a general or specific role, have a significant influence on encouraging employees to share their expertise with each other which results in their better performance. So, not only leadership style affects employee performance but also attribute of knowledge sharing contributes towards enhancing employee performance. Additionally, by promoting a culture of collaboration and leadership support, universities can support teacher's growth and development at professional level as well as personal level and leads towards their improved performance and overall success. As the multiple linear regression, it was clear that knowledge-oriented leadership, knowledge sharing (knowledge donating and knowledge collecting) predicts employee performance among the university teachers. Parallel mediation analysis was therefore carried out by using PROCESS MACRO (Hayes, 2013) to test the H_4 hypothesis of the study which aimed to explore the mediating role of knowledge sharing (knowledge donating and knowledge collecting) between knowledge-oriented leadership and employee performance. Results showed significant direct and indirect effects, indicating that knowledge-oriented leadership enhances employee's performance through knowledge sharing (knowledge donating and knowledge collecting). This finding was

supported by another study conducted by Almatrooshi et al. (2020) in which the results showed that knowledge sharing positively mediates the relationship between knowledge-oriented leadership and organizational performance in the Ministry of Interior in UAE which means that knowledge sharing improves organizational performance in the presence of knowledge-oriented leadership. Moreover, another study of Manzoor and Zhang (2024), supported this finding, it was in showing that knowledge-oriented leadership had a significant positive impact on innovation speed and quality. Additionally, knowledge sharing mediates both the relationship between knowledge-oriented leadership and innovation quality as well as the relationship between knowledge-oriented leadership and innovation speed. From the above findings, it is concluded that leadership can improve employee performance and organizational performance when knowledge sharing culture is supported, facilitated, and encouraged. Similarly, in higher education institutions when leaders promote a culture of sharing and implementing initiatives that encourage collaboration and knowledge sharing, educational institutions can significantly enhance performance.

Lastly, H_5 hypothesis of the study was to explore the significant difference of private and public sector teachers on study variables and the results indicated that there were significant differences of private and public sectors on knowledge-oriented leadership but not on knowledge sharing (knowledge donating and knowledge collecting) and employee performance. This finding was supported by the study of Bodla and Nawaz (2010), which showed that faculty members equally use transformational and passive/avoidant leadership styles in both the private and public sectors. However, faculty members in the private sector experience a transactional leadership style more than those in the public sector. From the above findings, it is concluded that teachers in private sectors are more likely to exhibit a goal-oriented leadership style. To achieve their goals or tasks, they rely more on knowledge sharing with their colleagues, which not only supports their own success but also promotes a collaborative environment where they can gain valuable insights and expertise from their peers which can

ultimately enhance their performance and leadership effectiveness.

Limitations and Future Directions

There are some limitations in the current study that can be overcome in future studies. One of the limitations is regarding the size of the research. The size was small so by increasing the sample size the quality of analyses and results could be increased. Moreover, another limitation is the use of a cross-sectional design, which may be influenced by participant's responses by their current emotional state, and their thoughts and feelings may fluctuate over time which potentially affects the accuracy and generalizability of the findings. In future study can be conducted with the same variables by increasing the sample size and using a longitudinal design, which would provide more comprehensive and accurate results. A longitudinal study would be better able to study changes over time, resulting in more reliable and generalizable results.

Implications

This study has significant implications for Pakistan's education sector. As Pakistan is among the third world countries where social and economic challenges are a serious concern but a better future through quality education and development is a hope. Therefore, according to this study we may gain more valuable insights and improve teaching standards by enhancing teachers' expertise in knowledge-oriented domains which will ultimately contribute in student's academic achievement and career success, thereby contributing to the country's socio-economic growth and development. By using these research findings, it will help teachers to gain and share their knowledge and to create better leadership programs for betterment. Furthermore, by sharing knowledge and being more open to learning, higher education institutions will be more dynamic and knowledge-oriented venues. As well as it could also help to improve their facilities and help them in making student and teacher relation better and also promote a collaborative work environment in educational settings.

Conclusion

This study highlights the impact of knowledge-oriented leadership on the employee performance of university teachers. Utilizing a cross-sectional research design, we discovered that knowledge-oriented leadership enhances employee performance through knowledge sharing. Our findings suggest that knowledge-oriented leadership is an effective strategy for fostering employee performance and can serve as a compensatory mechanism in demanding work environments. The results emphasize the importance for researchers and practitioners to recognize the positive role of knowledge-oriented leadership in academia to improve teacher performance. Hence it provides evidence that when teachers have leadership qualities and can tackle challenging situations and influence other people to follow them and create a positive environment where other members also feel recognized and valued, helped them to share their knowledge which can enhance the performance of the teachers at a personal level and organizational level, as they will become more dedicated and energetic and aware of all the things happen within the institution.

Conflict of Interest

The authors confirm that they have no competing interests, financial or non-financial, that could impact the objectivity or validity of the research reported in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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