

Unveiling the Impact of Creative Self-Efficacy, Knowledge-Sharing Behavior and Personality Traits: Knowledge-Oriented Leadership Perspective

Syeda Nazneen Waseem¹ and Abeer Saleem Siddiqui²

<https://doi.org/10.62345/jads.2025.14.1.112>

Abstract

This study explores the dynamic interplay between Knowledge-Oriented Leadership (KOL) and key psychological and behavioural factors, Creative Self-Efficacy (CSE), Knowledge-Sharing Behaviour (KSB), and Personality Traits within organizational settings. Using a quantitative approach, data were collected from 200 participants through a structured Google Forms survey. The analysis was conducted using SmartPLS, focusing on the structural relationships among constructs and testing sixteen hypotheses. Findings reveal that KOL complements both CSE and KSB, underlining its vital function in fostering an expertise-driven and innovation-friendly culture. Furthermore, CSE emerged as a partial mediator among KOL and KSB, suggesting that leaders can in a roundabout way influence knowledge-sharing by boosting employees' creative self-efficacy. The moderating function of character trends turned into additionally examined, indicating that tendencies including openness and conscientiousness beef up the hyperlink among CSE and KSB. This study contributes to the existing literature by way of supplying a complete model that integrates management, person efficacy, behaviour, and character dimensions to recognize statistical dynamics. The findings offer realistic insights for corporations aiming to domesticate modern and collaborative environments through strategic management development and customized control approaches. Future research instructions and managerial implications are discussed in terms of the consequences.

Keywords: Knowledge-Oriented Leadership, Creative Self-Efficacy, Knowledge-Sharing Behaviour, Personality Traits.

Introduction

The global economic system's dynamic and competitive nature desires innovation as a key driving force of commercial enterprise achievement. Global industries are contending with fast technology breakthroughs and difficult market constraints, emphasizing the need for leadership in selling innovation. Knowledge-Oriented Leadership (KOL), a leadership style based on know-how management standards, has emerged as a vital enabler on this environment. KOL emphasizes the significance of manufacturing, sharing, and the usage of organizational knowledge to enhance creativity and performance. Unlike traditional leadership strategies, KOL focuses on cooperation, consistent studying, and the strategic use of understanding belongings to fulfil changing needs.

¹Assistant Professor, Karachi University Business School, University of Karachi.

Email: Nazneen.waseem@uok.edu.pk ORCID ID: <https://orcid.org/0000-0002-5793-1688>

²Research Scholar, Karachi University Business School, University of Karachi.

Corresponding Author Email: Abeersiddiqui0294@gmail.com ORCID ID: <https://orcid.org/0009-0001-8720-4019>



Organizational innovation is inextricably connected to worker conduct and engagement. Employee-driven innovation is frequently related to aspects together with as motivation, inventiveness, and proactive involvement in problem resolution (Praszkier & Nowak, 2011).

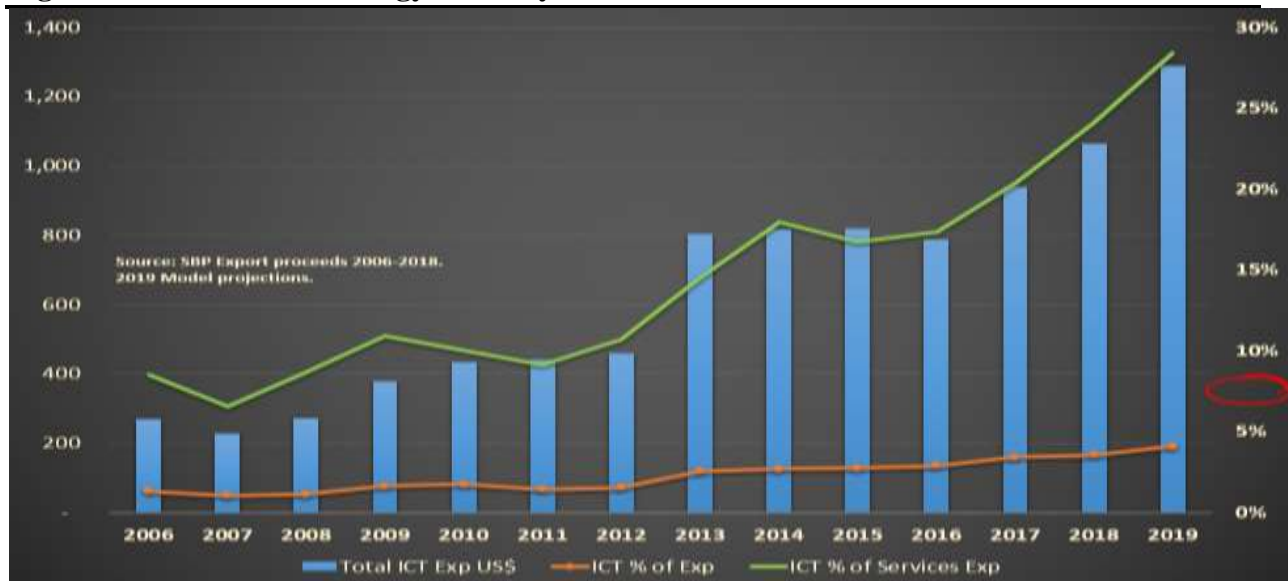
Figure 1: Top IT Companies in Pakistan



Source: datamites.com

Knowledge-Oriented Leadership impacts those behaviours by way of developing an environment wherein employees sense empowered to proportion thoughts and experiment with new answers. Organizations can correctly bridge the space between individual creativity and organization innovation effects by way of integrating expertise-sharing strategies into leadership projects. The IT sector, in particular in know-how-intensive economies like Pakistan, gives an ideal setting for investigating those processes. As Karachi remains a critical hub for the era of innovation, its IT companies confront the blended venture of adjusting to fast technical advances at the same time as also addressing systemic worries like as leadership inefficiencies and talent retention (Gartner & Gartner, 2016).

Figure 2: Pakistan Technology Industry



Source: financetrainingcourse.com

Problem Statement

As world is globalizing rapidly with the technological advancement and becoming one market which has increased competition for the organization to get an edge. Organizations are facing immense pressure to cope with the dynamics of world market and to remain innovative to sustain in competitive environment, as innovation is a core driver of growth, performance and valuation. Despite the acknowledgement of the importance of innovation many organizations fail to identify the main factors that drive employee's innovative performance. It became global challenge to achieve innovation due to lack of effective leadership, appropriate leadership style and leadership strategies (Roulin & Levashina, 2019). By not recognizing individual psychological trait, behaviours and personality and hurdles to knowledge sharing. The challenge lies in filling the leadership gap preventing the flow of ideas necessary for collaborative innovation to enhance organizational performance. The famous company like META (formally Facebook) is an example of ineffective leadership as it has faced scrutiny for their decisions related to privacy concerns (Taruffi & Koelsch, 2014).

Research Objectives

- To analyse the positive personality traits and cognitive flexibility influence employee innovative performance under knowledge oriented-leadership.
- To examine the role of personality traits and cognitive flexibility in enhancing association of personal initiative and psychological empowerment with Knowledge oriented leadership.
- To understand the positive personality traits and cognitive flexibility impact knowledge-share behaviours and job involvement with the help of knowledge-oriented leadership.
- To analyse the positive personality traits and cognitive flexibility moderate the relation of Creative self-efficacy with knowledge-oriented leadership.

Literature Review

Knowledge Oriented-Leadership

The late 20th century saw the rise of the knowledge economy, which highlighted the importance of utilizing intangible resources like knowledge, creativity, and intellectual capital. Because of this change, leaders have to concentrate on efficiently developing, managing, and applying knowledge. Organizational growth in the knowledge-driven modern economy is derived from innovation rather than operational efficiency, which has restored the value of the human element in work because human minds contain tacit knowledge, the most crucial component of an innovation (Espíritu-Olmos & Sastre-Castillo, 2015). An entire organization, a department, a division, a portion of an organization, or simply a collection of people working toward a same goal can all be considered knowledge organizations (Lin, 2010).

Leading with Knowledge

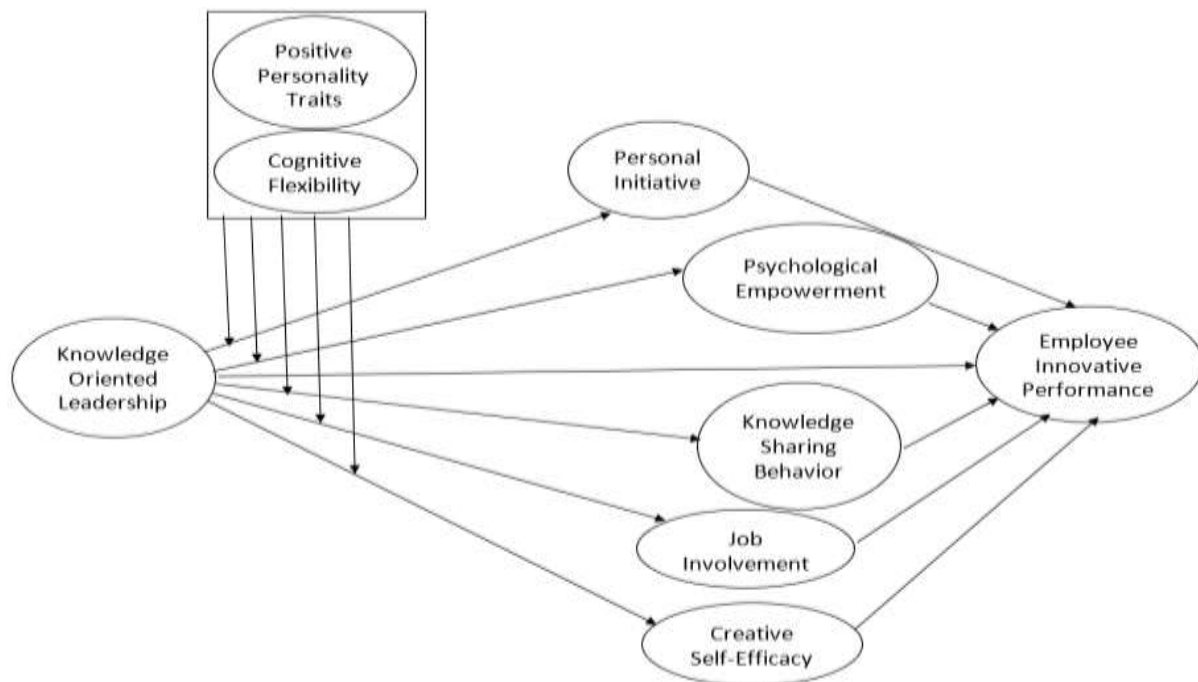
Knowledge is created in the social interaction between individuals and organizations when interpreting information, the knowledge hidden in organizational culture alongside the tacit and explicit knowledge in individuals and organizations. Cultural knowledge is manifested in the assumptions, beliefs and norms that are used to interpret and evaluate new information and knowledge. Organizational culture defines what kind of information is sought and nurtured in organizations, and what kind of knowledge sharing culture is encouraged (Lorinkova & Perry, 2017). Organizational knowledge is as if in the walls, it does not disappear with personnel turnover. An organization must have generally accepted goals and objectives, a common

understanding of the means of action, and a common view of how and by what criteria the results achieved are measured (Mumford & Gujar, 2016).

Effective People Management in Developing Your Own Leadership

Supervisor work plays a role in self-management. Leaders themselves must understand the characteristics of self-management so that they can also develop the rest of the work community. Leaders can utilize different dimensions such as self-visualization, goal setting, self-reward and positive thinking, self-observation and determining effective methods and activities, as well as the dimensions of increasing awareness, performance, self-confidence and general well-being as an assessment tool for effectively assessing self-management. The dimensions can also be utilized to study and develop employee behaviour (Dhatt et al., 2017). Self-management is supported by a trusting relationship between the employee and the supervisor, and self-management can achieve well-being at work. Self-management also supports commitment to work. More time should be given to self-reflection, especially when work is described as fragmented. Management was expected to descend to the grassroots level of the workplace so that they would understand the work and the tools used in it. One of the basic psychological needs of humans is a sense of belonging, which reflects the human need to feel connected to another person (Shamir et al., 2018).

Figure 3: Conceptual Framework



Methodology

The social cognitive theory (SCT) has been used to look at the prevailing model in the information sector, which is characterised through expertise-in depth expertise. This observation's theoretical basis is Bandura's SCT (1986). The SCT is widely acknowledged and applied in various domains, including organizational psychology, management, and business research. This theory with social learning theory, explaining individual behaviour as self-motivated, give-and-take, and influenced by their environment. An organization's environment influences individuals' learning and decision-

making processes. Creative self-efficacy is a personal trait that fosters self-confidence and the ability to face adversities (Oelze et al., 2016).

Hypotheses Development

Based on the literature review and theoretical foundation various hypotheses have been developed:

- H1: There is a significant relationship between Knowledge-Oriented Leadership (KOL) and Employee Innovative Performance (EIP).
- H2a: Personal initiative mediates the significant association between KOL and EIP.
- H2b: Psychological empowerment mediates the significant association between KOL and EIP.
- H2c: Knowledge sharing behaviours mediate the significant association between KOL and EIP.
- H2d: Job involvement mediates the significant association between KOL and EIP.
- H2e: Creative self-efficacy mediates the significant association between KOL and EIP.
- H3a: Positive personality traits moderate the significant association between KOL and Personal Initiative, such that higher levels of positive personality traits strengthen this relationship.
- H3b: Positive personality traits moderate the significant association between KOL and Psychological Empowerment, such that higher levels of positive personality traits strengthen this relationship.
- H3c: Positive personality traits moderate the significant association between KOL and Knowledge Sharing Behaviours, such that higher levels of positive personality traits strengthen this relationship.
- H3d: Positive personality traits moderate the significant association between KOL and Job Involvement, such that higher levels of positive personality traits strengthen this relationship.
- H3e: Positive personality traits moderate the significant association between KOL and Creative Self-Efficacy, such that higher levels of positive personality traits strengthen this relationship.
- H4a: Cognitive flexibility moderates the significant association between KOL and Personal Initiative, such that higher levels of cognitive flexibility strengthen this relationship.
- H4b: Cognitive flexibility moderates the significant association between KOL and Psychological Empowerment, such that higher levels of cognitive flexibility strengthen this relationship.
- H4c: Cognitive flexibility moderates the significant association between KOL and Knowledge Sharing Behaviours, such that higher levels of cognitive flexibility strengthen this relationship.
- H4d: Cognitive flexibility moderates the significant association between KOL and Job Involvement, such that higher levels of cognitive flexibility strengthen this relationship.
- H4e: Cognitive flexibility moderates the significant association between KOL and Creative Self-Efficacy, such that higher levels of cognitive flexibility strengthen this relationship.

Research Approach

This study makes use of a quantitative research technique to investigate the relationships between Knowledge-Oriented Leadership (KOL), Employee Innovative Performance (EIP), and the proposed mediating variables, i.e. Personal initiative, Psychological empowerment, Knowledge sharing behaviours, Job involvement and Creative self-efficacy and moderating variables i.e. Positive character trends and cognitive flexibility. The approach contains mounted theoretical

underpinnings, consisting of Social Cognitive Theory (SCT), and employs rigorous statistical analyses to validate the hypotheses. We have used quantitative study techniques to a degree and analysed our records. It enables checking hypotheses, setting up relationships, and generalising findings throughout huge populations (Ciravegna & Brenes, 2016).

Research Design

Psychological Empowerment is our first impartial variable. Our second unbiased variable is Employee Innovative Performance. Creative Self-Efficacy is our third variable. Knowledge Sharing Behaviour is our fourth variable. Job Involvement is our fifth independent variable. Personal Initiative is our sixth unbiased variable. Knowledge-Oriented Leadership is our established variable in this study.

Sampling Design

Target Population

The study focused on employees and their immediate supervisors from the IT companies in Karachi, Pakistan. Our targeted population is 200. The statistics are also accumulated from employees of businesses who have statistics associated with Knowledge-Oriented Leadership. We pre-examined our survey with IT experts and integrated their feedback (Tong, 2020).

Sample Size

The study used a random sample technique among chosen IT businesses in Karachi, Pakistan. Employees and their immediate supervisors were invited to participate through professional relationships made with the IT departments of these organizations (Popli & Rizvi, 2016).

Sample Technique

We have used simple Random Sampling Method. We have selected individuals randomly from IT industry including male and female both. The individuals are mainly from IT department. For Analysis of data, we have used SEM technique. It is used to understand the relationship between the variables (Boukis et al., 2020).

Results and Findings

Data Screening

Data screening has been done with the help of Data collected based on the PLS software. These applications have been used to understand the process of data screening and revealing the results based on the specific operations to understand the value of P and emphasize the limited sample size for retrieving the results of the study.

Table 1: Path coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CF -> CSE	-0.938	-0.922	0.237	3.949	0.000
CF -> JI	-0.510	-0.509	0.251	2.032	0.042
CF -> KSB	0.642	0.640	0.175	3.673	0.000
CF -> PE	-1.086	-1.074	0.195	5.559	0.000
CF -> PI	-0.013	-0.015	0.144	0.093	0.926
CF x KOL -> CSE	0.983	0.974	0.191	5.157	0.000
CF x KOL -> JI	0.331	0.340	0.175	1.896	0.058
CF x KOL -> KSB	-0.069	-0.061	0.093	0.735	0.462
CF x KOL -> PE	0.070	0.057	0.164	0.424	0.672
CF x KOL -> PI	0.264	0.258	0.086	3.088	0.002
KOL -> CSE	0.764	0.759	0.115	6.674	0.000
KOL -> EIP	0.872	0.873	0.021	42.352	0.000
KOL -> JI	1.116	1.116	0.104	10.775	0.000
KOL -> KSB	0.105	0.106	0.053	1.968	0.049
KOL -> PE	0.990	0.986	0.094	10.508	0.000
KOL -> PI	0.264	0.265	0.055	4.762	0.000
PPT -> CSE	1.228	1.215	0.164	7.499	0.000
PPT -> JI	0.401	0.401	0.181	2.221	0.026
PPT -> KSB	0.256	0.257	0.153	1.672	0.095
PPT -> PE	1.113	1.103	0.146	7.611	0.000
PPT -> PI	0.778	0.779	0.118	6.619	0.000
PPT x KOL -> CSE	-0.823	-0.819	0.177	4.656	0.000
PPT x KOL -> JI	-0.265	-0.275	0.169	1.566	0.117
PPT x KOL -> KSB	0.084	0.076	0.095	0.884	0.377
PPT x KOL -> PE	-0.070	-0.059	0.172	0.405	0.686
PPT x KOL -> PI	-0.239	-0.233	0.082	2.925	0.003

Notes: KOL: Knowledge Oriented Leadership, PPT: Positive Personality Traits, CF: Cognitive Flexibility, PI: Personal Initiative, PE: Psychological Empowerment, KSB: Knowledge Sharing Behaviour, JI: Job Involvement, CSE: Creative Self-Efficacy, EIP: Employee Innovative Performance. PPT -> KSB value has been found high as compared to other comparisons in the pathway of the p value.

The path coefficient value is helpful in reviewing the variance and results based on the data collected from the respondents. The value is significant if the P value is more than 0.05 in most of the results. The data is narrating the value for a lot of uh variables are taken from the conceptual framework and giving the result. The analytics has been reviewed in the context of various comparisons where the value has been traced low in most of the variables. The dominant result has been traced for the value of CF in contrast to JI only. This shows correlational support in handling the data and ensuring the application of the various analytical support in the context of about 0.926 values for the variable at one place and 0.95 at another place.

Table 2: Outer loading

	Original sample (O)	Sample mean (M)	Standard deviation	T statistics (O/STDEV)	P values
CF 1 <- CF	0.916	0.916	0.009	105.822	0.000
CF 2 <- CF	0.906	0.906	0.010	89.531	0.000
CF 3 <- CF	0.879	0.879	0.016	56.181	0.000
CF 4 <- CF	0.914	0.914	0.009	98.230	0.000
CF 5 <- CF	0.885	0.884	0.021	43.149	0.000
CF 6 <- CF	0.873	0.873	0.021	40.681	0.000
CSE 1 <- CSE	0.915	0.915	0.011	84.999	0.000
CSE 2 <- CSE	0.960	0.960	0.007	136.454	0.000
CSE 3 <- CSE	0.918	0.917	0.012	74.559	0.000
EIP 1 <- EIP	0.825	0.825	0.024	33.811	0.000
EIP 2 <- EIP	0.870	0.871	0.015	58.492	0.000
EIP 3 <- EIP	0.927	0.927	0.009	100.516	0.000
EIP 4 <- EIP	0.928	0.928	0.008	115.573	0.000
EIP 5 <- EIP	0.887	0.886	0.015	59.795	0.000
EIP 6 <- EIP	0.894	0.894	0.014	65.583	0.000
JI 1 <- JI	0.935	0.935	0.009	109.347	0.000
JI 2 <- JI	0.923	0.922	0.012	74.620	0.000
JI 3 <- JI	0.899	0.899	0.022	41.452	0.000
JI 4 <- JI	0.917	0.916	0.013	70.807	0.000
KOL 1 <- KOL	0.949	0.949	0.007	145.660	0.000
KOL 2 <- KOL	0.927	0.927	0.010	91.794	0.000
KOL 3 <- KOL	0.923	0.923	0.011	84.619	0.000
KOL 4 <- KOL	0.854	0.854	0.030	28.302	0.000
KOL 5 <- KOL	0.960	0.960	0.004	239.853	0.000
KOL 6 <- KOL	0.817	0.817	0.028	28.785	0.000
KSB 1 <- KSB	0.890	0.890	0.014	64.263	0.000
KSB 2 <- KSB	0.879	0.880	0.020	43.595	0.000
KSB 3 <- KSB	0.903	0.903	0.012	72.908	0.000
KSB 4 <- KSB	0.913	0.913	0.015	60.121	0.000
KSB 5 <- KSB	0.893	0.893	0.016	55.992	0.000
KSB 6 <- KSB	0.893	0.893	0.018	51.013	0.000
PE 1 <- PE	0.893	0.892	0.021	42.874	0.000
PE 2 <- PE	0.919	0.920	0.012	76.288	0.000
PE 3 <- PE	0.922	0.922	0.011	81.537	0.000
PI 1 <- PI	0.911	0.911	0.010	93.322	0.000
PI 2 <- PI	0.887	0.888	0.013	66.225	0.000
PI 3 <- PI	0.893	0.893	0.014	62.065	0.000
PI 4 <- PI	0.903	0.902	0.014	63.212	0.000
PI 5 <- PI	0.902	0.902	0.018	49.942	0.000
PI 6 <- PI	0.900	0.900	0.018	50.835	0.000
PI 7 <- PI	0.901	0.901	0.015	58.471	0.000
PPT 1 <- PPT	0.937	0.937	0.007	140.051	0.000
PPT 2 <- PPT	0.935	0.935	0.008	114.113	0.000
PPT 3 <- PPT	0.922	0.922	0.009	106.502	0.000
PPT 4 <- PPT	0.896	0.896	0.014	64.091	0.000
PPT 5 <- PPT	0.918	0.918	0.012	77.460	0.000

The outer loading value has been reviewed with the help of PLS software and it has been found that the value is helpful in justifying the results for comparison of the direct and indirect variables. It is a showing that if the value is more than 0.7 then it is contributing a construct for validity and can have a significant impact in the research. The table shows more than 0.7 for most of the variables so it has been justified that maximum variables are showing a dominant context for the potential of significance in Knowledge-Oriented Leadership (KOL) and productivity in the organizational goals achievement. 0.817 low value has been found for KOL only at some places.

Table 3: R Square

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CSE	0.858	0.862	0.016	52.736	0.000
EIP	0.761	0.763	0.036	21.237	0.000
JI	0.901	0.905	0.019	47.264	0.000
KSB	0.961	0.962	0.006	159.649	0.000
PE	0.896	0.901	0.016	57.674	0.000
PI	0.970	0.971	0.004	235.233	0.000

R square shows the determination coefficient with the variances so discrimination could be possible between the independent and independent variables based on their relationship. The value ranges from zero to 1 where the highest possible values give significant relationships as compared to the lower ones. The table shows a higher value for PI as dominance at 0.971 followed by EIP at 0.763. Explanatory power has been represented for the moderating variables and it has been suggested that the dominant threshold has been traced for KOL with an influence of human resource analytics.

Table 4: R Square Adjustment

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CSE	0.855	0.858	0.017	51.185	0.000
EIP	0.760	0.762	0.036	21.096	0.000
JI	0.899	0.902	0.020	45.939	0.000
KSB	0.960	0.961	0.006	155.453	0.000
PE	0.893	0.898	0.016	56.049	0.000
PI	0.969	0.971	0.004	229.110	0.000

The R square variance has been reviewed based on the dependent variables in collaboration with the independent ones. They act as predictors to forecast the outline value and discuss the implementations based on the adjustments of R square variance. 0.971 is giving a dominant value for PI in collaboration with its implementation however the least value has been traced for RIS. The companion collaboration is showing 2 where PI remained dominant.

Table 5: RHO c

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CF	0.960	0.960	0.005	200.902	0.000
CSE	0.951	0.951	0.006	160.158	0.000
EIP	0.958	0.958	0.004	217.374	0.000
JI	0.956	0.956	0.006	171.018	0.000
KOL	0.965	0.965	0.004	223.037	0.000
KSB	0.960	0.960	0.005	186.300	0.000
PE	0.936	0.936	0.008	114.931	0.000
PI	0.967	0.967	0.004	267.920	0.000
PPT	0.966	0.966	0.003	295.563	0.000

RHO c has reviewed the P value for various variables as per conceptual framework and it has been outlined that there is an extreme difference between the lowest and the highest value. The lowest value is traced as 114.931 for PE however, the highest one is 295.563 for PPT. It is narrating that director PE has been a dominant concern in PPT handling in the organizations and can be a true game changer while dealing with the challenges.

Table 6: RHO a

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CF	0.951	0.951	0.006	156.845	0.000
CSE	0.923	0.923	0.010	94.238	0.000
EIP	0.947	0.948	0.006	169.145	0.000
JI	0.938	0.939	0.008	117.951	0.000
KOL	0.957	0.957	0.006	168.980	0.000
KSB	0.951	0.951	0.007	144.284	0.000
PE	0.902	0.902	0.013	72.081	0.000
PI	0.961	0.961	0.004	221.974	0.000
PPT	0.956	0.956	0.004	223.939	0.000

RHO c value has been reviewed in the context of P value variations and it has been found that the maximum Value exists for PPT for about 223.939 while the least value is for PE which is 72.081. It has been found that the difference between 2 is again high which needs to be addressed with the context of collaboration and contrasts.

Table 7: Average Variance

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CF	0.802	0.802	0.020	40.419	0.000
CSE	0.867	0.867	0.015	58.861	0.000
EIP	0.791	0.791	0.018	44.322	0.000
JI	0.843	0.843	0.017	48.694	0.000
KOL	0.821	0.822	0.018	44.411	0.000
KSB	0.801	0.802	0.021	37.481	0.000
PE	0.831	0.831	0.019	43.418	0.000
PI	0.809	0.809	0.018	46.022	0.000
PPT	0.850	0.850	0.013	67.445	0.000

The average variance executes the value for contrast where the amount of the various latent constructs has been outlined to understand the total variance in the findings. It is showing the lowest value for about 40.419 CF while on the other hand, the highest value has been outlined for CSE as 58.861 and PPT as 67.445. The differences justify the correlations and the variances of variables in the current analysis based on the average various execution values.

Table 8: Cronbach Alpha

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CF	0.951	0.950	0.006	151.443	0.000
CSE	0.923	0.923	0.010	92.988	0.000
EIP	0.947	0.947	0.006	161.961	0.000
JI	0.938	0.938	0.008	114.078	0.000
KOL	0.956	0.956	0.006	164.495	0.000
KSB	0.950	0.950	0.007	141.369	0.000
PE	0.898	0.898	0.014	64.351	0.000
PI	0.961	0.961	0.005	213.263	0.000
PPT	0.956	0.956	0.004	217.124	0.000

The Cronbach alpha value is linked with the consistency and reliability factors while measuring the variable. It has been found that the consistency and reliability factor can be high if the value of the ground batch alpha is above 0.7 with significance. The original sample of the value shows a high value above 0.7 for most of the variables.

Table 9: HTMT

	Original sample (O)	Sample mean (M)	2.5%	97.5%
CSE <-> CF	0.943	0.944	0.917	0.967
EIP <-> CF	1.025	1.025	1.016	1.035
EIP <-> CSE	0.982	0.982	0.963	1.000
JI <-> CF	0.922	0.923	0.882	0.958
JI <-> CSE	0.891	0.892	0.826	0.949
JI <-> EIP	0.891	0.891	0.824	0.943
KOL <-> CF	0.958	0.958	0.931	0.983
KOL <-> CSE	0.876	0.876	0.825	0.922
KOL <-> EIP	0.913	0.914	0.868	0.950
KOL <-> JI	0.998	0.998	0.970	1.021
KSB <-> CF	1.029	1.029	1.020	1.040
KSB <-> CSE	0.932	0.932	0.900	0.961
KSB <-> EIP	1.009	1.009	0.994	1.022
KSB <-> JI	0.952	0.952	0.923	0.977
KSB <-> KOL	0.945	0.945	0.911	0.976
PE <-> CF	0.970	0.970	0.935	1.001
PE <-> CSE	0.972	0.972	0.930	1.010
PE <-> EIP	0.999	0.999	0.967	1.029
PE <-> JI	0.898	0.899	0.832	0.952
PE <-> KOL	0.981	0.982	0.945	1.013
PE <-> KSB	0.930	0.931	0.875	0.979

PI <-> CF	1.018	1.018	1.010	1.026
PI <-> CSE	0.988	0.988	0.971	1.003
PI <-> EIP	1.025	1.025	1.016	1.035
PI <-> JI	0.860	0.861	0.793	0.917
PI <-> KOL	0.911	0.911	0.866	0.951
PI <-> KSB	0.982	0.982	0.966	0.997
PI <-> PE	0.982	0.982	0.951	1.011
PPT <-> CF	1.018	1.018	1.012	1.024
PPT <-> CSE	0.949	0.948	0.919	0.974
PPT <-> EIP	1.032	1.032	1.024	1.042
PPT <-> JI	0.844	0.845	0.773	0.905
PPT <-> KOL	0.859	0.859	0.800	0.913
PPT <-> KSB	1.001	1.001	0.987	1.014
PPT <-> PE	0.940	0.940	0.881	0.993
PPT <-> PI	1.017	1.017	1.010	1.025

HTMT follows the pattern of discriminant validity in collaboration to construct That allows the correlational support in understanding the discrimination and discriminant validity for the variables. The value has been contrasted and checked that if it is above 0.7 then it can be influencing which has been reviewed for the contrast of two variables if sequentially. It has been found that the value has been placed above 0.7 for some of the variables.

Hypotheses Testing

Hypothesis 1: There is a significant relationship between KOL and EIP.

KOL is essential in creating a climate that promotes information exchange, creative problem-solving, and innovation. Leaders who prioritize knowledge acquisition, distribution, and utilization improve employee inventive performance (EIP). The relationship between KOL and employee inventive performance has been the focus of numerous organizational research, emphasizing the crucial role that leadership plays in encouraging innovation (Peterson, 2017). KOL is a management style that focuses on producing, sharing, and effectively applying knowledge to improve organizational outcomes.

Hypothesis 2a: Personal initiative mediates the positive association between KOL and Employee's innovative performance.

According to research, personal initiative, defined as proactive and self-starting conduct, has a favorable relationship with employees' innovative behavior. Employees who take initiative are more likely to participate in creative processes and contribute to organizational innovation. They also suggest that leadership styles can influence personal initiative. Findlay et al. (2016) describe how Personal initiative is critical for work performance in the twenty-first century, with a focus on its function in promoting innovation. Personal initiative mediates the association between KOL and employee's innovative performance. Employees with a high level of initiative made better use of resources which enhance employee's innovative performance.

Hypothesis 2b: Psychological empowerment mediates the positive association between KOL and Employee's innovative performance.

Psychological empowerment is an important moderator in the relationship between KOL and employee inventive performance. Hollenbeck et al., (2015) describes an actual situation in which

the absence of an essential employee, Ayesha, who has crucial information and monitors critical processes, disturbs the smooth operation of a plant. This example emphasizes the importance of leadership techniques that promote sharing of knowledge and psychological empowerment for employees. Wilhelm (2017) also describes that KOL encourages employees to learn, share, and apply knowledge, resulting in an environment that promotes creativity. Employees who feel psychologically empowered with a sense of meaning, competence, autonomy, and impact are more likely to engage in innovative behaviors.

Hypothesis 2c: Knowledge Sharing Behaviors mediates the positive association between Knowledge oriented leadership and Employee's innovative performance.

According to Xie et al. (2018), knowledge is a valued intangible asset that contributes to an organization's long-term competitive advantage. There are two types of knowledge: implicit (rooted in daily routines and processes) and explicit (documented in written form, such as organizational rules, policies, and facts). Implicit information is gained with the intention of its presence, whereas explicit knowledge is acquired by purposeful monitoring of outer and internal processes.

Hypothesis 2d: Job Involvement mediates the positive association between KOL and Employee's innovative performance.

Job involvement is the degree to which individuals identify with their job duties, value their work, and are organically motivated to do well. Employees that are highly involved are more likely to be inspired to innovate because they see their work to be meaningful and are more invested in the results. Job involvement mediates the association between transformational leadership (a type of KOL) and employee innovative performance. These leaders have been shown to increase job involvement, which in turn encourages employees to engage in innovative activities (Abdullahi et al., 2020).

Hypothesis 2e: Creative self-efficacy mediates the positive association between KOL and Employee's innovative performance.

The relationship between transformational leadership and creative self-efficacy and discovered that transformational leadership (a fundamental component of knowledge-oriented leadership) improves creative self-efficacy. According to Rubens et al., (2018), creative self-efficacy serves as a mediator between transformational leadership and employee creativity and leaders that foster open communication, learning, and idea generation boost employees' confidence in their potential to be creative, resulting in better inventive performance.

Hypothesis 3a: Positive personality traits moderate the positive association between KOL and Personal initiative in such a way that a higher level of Positive personality traits will strengthen the association between KOL and Personal initiative.

According to research, positive personality traits can considerably influence the association between KOL and personal initiative. Employees who show better levels of desire and optimism are more likely to thrive at work, resulting in elevated learning and power. This flourishing mediates the association among high-quality persona features and Personal initiative, implying that these trends improve human beings' capacity to create and achieve personal targets in organizational contexts (Soeardi et al., 2022). Emotional intelligence moderates the association between KOLs and Personal initiative. Leaders who prioritize information dissemination can

create cultures in which individuals with strong emotional intelligence feel more empowered to share their tacit knowledge and express expertise.

Hypothesis 3b: Positive personality traits moderate the positive association between KOL and Psychological empowerment in such a way that a higher level of Positive personality traits will strengthen the association between KOL and Psychological empowerment.

A high-quality personality trait can help govern the link between KOL and psychological empowerment. A study posted in the Journal of Knowledge Management explored how KOL influences psychological empowerment. This study discovered that employees with higher emotional intelligence had a stronger positive association between KOL and psychological empowerment. This means that emotional intelligence, a fine personal trait, increases the effectiveness of KOL in growing psychological empowerment (Reiche et al., 2017). The impact of positive personality trait on transformational management patterns (part of KOL). The study found that Positive personality developments changed into favorably linked with transformational leadership style, and psychological empowerment bolstered this association.

Hypothesis 3c: Positive personality traits moderate the positive association between KOL and Knowledge sharing behavior in such a way that a higher level of Positive personality traits will strengthen the association between KOL and Knowledge sharing behavior.

Positive personality traits can have a considerable impact on the relationship between KOL and knowledge-sharing behavior as the Positive personality trait had a large and beneficial impact on knowledge-sharing behaviors. Positive personality traits influenced several aspects of Knowledge sharing. Openness to experience, extraversion, and conscientiousness (part of Positive personality traits) all had a favorable influence on employee's knowledge-sharing behavior (Kreutzer et al., 2018).

Hypothesis 3d: Positive personality traits moderate the positive association between KOL and Job involvement in such a way that a higher level of Positive personality traits will strengthen the association between KOL and Job involvement.

Positive personality traits are linked to leadership effectiveness, which have an impact on job involvement. Positive personality traits have a major impact on Job involvement. Positive personality traits have been linked to improved Job involvement in a variety of occupations. This shows that people with specific favorable personality traits are more likely to be engaged and perform well at work. Knowledge-oriented leadership focuses on creating an environment that promotes Job involvement. It has a favorable impact on employee's Job involvement by encouraging knowledge management activities (Schwarz Müller et al., 2018). Positive personality traits can influence how effective leadership styles are on employee's performance. Positive personality traits modify the favorable association between Knowledge-oriented leadership and person-job fit, which influences Job involvement.

Hypothesis 3e: Positive personality traits moderate the positive association between KOL and Creative self-efficacy in such a way that a higher level of Positive personality traits will strengthen the association between KOL and Creative self-efficacy.

The relationship between KOL and creative self-efficacy is multifaceted and can be influenced by a variety of factors, including Positive personality traits. The effect on KOL and creative self-

efficacy. According to Jang et al., (2017), leaders with positive personality traits that promote knowledge sharing and creativity can strengthen employees' confidence in their creative talents.

Hypothesis 4a: Cognitive flexibility moderates the positive association between KOL and Personal initiative in such a way that a higher level of Cognitive flexibility will strengthen the association between KOL and Personal initiative.

Cognitive flexibility, defined as the mental ability to turn between two different notions or to think about numerous concepts at the same time, is important in moderating various organizational connections, particularly those involving leadership and personal initiative. The findings revealed that cognitive flexibility moderates this link, implying that those with higher cognitive flexibility are better able to turn innovative ideas into performance outcomes (Xu et al., 2019).

Hypothesis 4b: Cognitive flexibility moderates the positive association between KOL and Psychological empowerment in such a way that a higher level of Cognitive flexibility will strengthen the association between KOL and Psychological empowerment.

Psychological empowerment is having control over one's life choices, which is crucial in today's world. Cognitive flexibility and self-control are effective tools for managing cravings and to stay motivated. In able to full fill these requirements leadership style should be like Knowledge oriented. Individuals with high levels of cognitive flexibility are more likely to feel competent, self-determined, and aligned with their goals and beliefs, leading to high performance under knowledge-oriented leadership (Sharif, 2019).

Hypothesis 4c: Cognitive flexibility moderates the positive association between KOL and Knowledge sharing behavior in such a way that a higher level of Cognitive flexibility will strengthen the association between KOL and Knowledge sharing behavior.

The of cognitive flexibility and emotional intelligence in facilitating shared leadership and improvisation. The findings revealed that cognitive flexibility moderates the association between shared leadership and improvisation, implying that those with greater cognitive flexibility are better able to adjust to leadership dynamics and engage in innovative activities. Although this study focuses on improvisation, the fundamental principle can be applied to knowledge-sharing behaviors, as both necessitate adaptability and an openness to new ideas (Neuman, 2019).

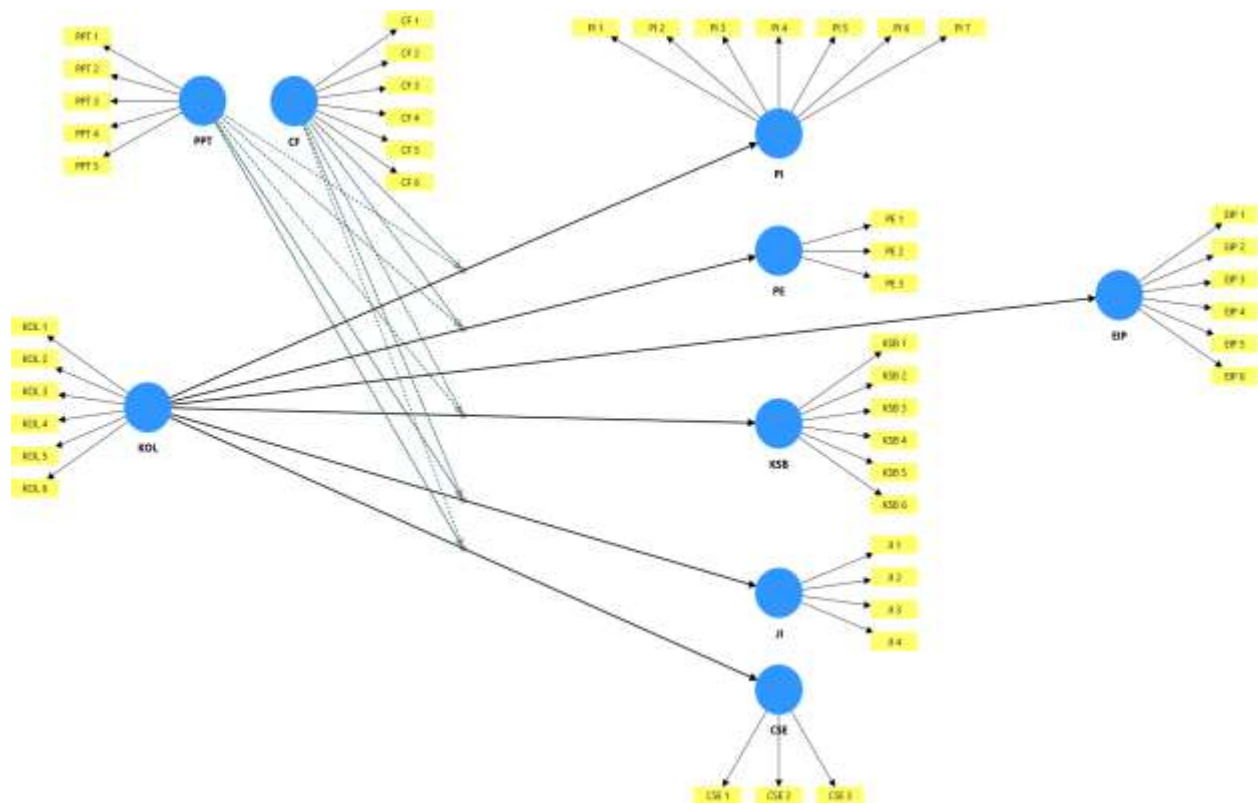
Hypothesis 4d: Cognitive flexibility moderates the positive association between KOL and Job involvement in such a way that a higher level of Cognitive flexibility will strengthen the association between KOL and Job involvement.

Cognitive flexibility was found to play a moderating role in studies of leader humor and newcomer adjustment. The study discovered that cognitive flexibility determines how leader conduct affects newcomer adjustment, implying that those with higher cognitive flexibility are more responsive to leadership styles and can better involve in their job. Another study demonstrates how cognitive flexibility improves Job involvement. According to Saqib Khan et al., (2015), using diverse views and avoiding oversimplification improves knowledge transferability, which can be done under knowledge-oriented leadership and provide better levels of job involvement.

Hypothesis 4e: Cognitive flexibility moderates the positive association between KOL and Creative self-efficacy in such a way that a higher level of Cognitive flexibility will strengthen the association between KOL and Creative self-efficacy.

KOL, which promotes knowledge sharing and ongoing learning. A study shows the relationship between KOL and EIP, stressing the moderating influence of creative self-efficacy. While this study focused on creative self-efficacy as a moderator, it suggests that qualities that increase creative self-efficacy, such as cognitive flexibility, may also moderate this association. The findings indicate that cognitive flexibility promotes individual innovation, and leadership traits can influence this effect. Although this study does not directly address the precise relationship at hand, it does support the idea that cognitive flexibility plays an important role in creative results within leadership frameworks (Wittmer & Hopkins, 2018).

Figure 4: Diagrammatic Review of Hypothesis



Conclusion

This study appreciably tested the connection between Knowledge-Oriented Leadership (KOL) and Employee Innovative Performance (EIP) inside the IT region of Pakistan. The research supplied an in-depth exploration of mediating roles, which includes understanding-sharing conduct, activity involvement, personal initiative, psychological empowerment, and innovative self-efficacy, along with moderating effects like cognitive flexibility and advantageous personality developments. The findings underscore that KOL performs a vital role in fostering a dynamic and innovation-driven work culture through promoting know-how-sharing, collaboration, and increased worker engagement (Gnizy et al., 2014). Organizations that efficiently enforce KOL strategies tend to enjoy sustained growth due to better information management, stronger decision-making tactics, and improved worker satisfaction. The effects are consistent with prior research that links leadership effectiveness to know-how utilization and commercial enterprise innovation.

Future Research Recommendations

Future research must discover the influence of KOL across special industries beyond IT, such as healthcare, finance, and engineering, to enhance the broader applicability of findings. Conducting longitudinal studies would help assess how KOL evolves in response to changing organizational landscapes, technological advancements, and global economic shifts. Investigating how cultural dimensions, organizational norms, and employee values interact with knowledge-oriented leadership would provide deeper insights into leadership effectiveness in diverse work environments (Linderman & Chandrasekaran, 2010). Emerging technologies, Artificial Intelligence (AI), blockchain, and cloud computing, are reshaping expertise management. Future research ought to discover how these technology effect KOL and employee innovation.

References

- Abdullahi, A. Z., Anarfo, E. B., & Anyigba, H. (2020). The impact of leadership style on organizational citizenship behavior: does leaders' emotional intelligence play a moderating role? *Journal of Management Development*. <https://doi.org/10.1108/JMD-01-2020-0012>
- Boukis, A., Koritos, C., Daunt, K. L., & Papastathopoulos, A. (2020). Effects of customer incivility on frontline employees and the moderating role of supervisor leadership style. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2019.103997>
- Ciravegna, L., & Brenes, E. R. (2016). Learning to become a high reliability organization in the food retail business. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2016.03.015>
- Dhatt, R., Theobald, S., Buzuzi, S., Ros, B., Vong, S., Muraya, K., Molyneux, S., Hawkins, K., González-Beiras, C., Ronsin, K., Lichtenstein, D., Wilkins, K., Thompson, K., Davis, K., & Jackson, C. (2017). The role of women's leadership and gender equity in leadership and health system strengthening. *Global Health, Epidemiology and Genomics*. <https://doi.org/10.1017/gh.2016.22>
- Espíritu-Olmos, R., & Sastre-Castillo, M. A. (2015). Personality traits versus work values: Comparing psychological theories on entrepreneurial intention. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2015.02.001>
- Findlay, H. J., Freeman, S. J., & Findlay, H. E. (2016). Building multi-generational teams and avoiding fatal leadership. *Journal of Higher Education Management*.
- Gartner, W., & Gartner, W. B. (2016). "Who is an Entrepreneur?" Is the Wrong Question. In *Entrepreneurship as Organizing*. <https://doi.org/10.4337/9781783476947.00009>
- Gnizy, I., E. Baker, W., & Grinstein, A. (2014). Proactive learning culture. *International Marketing Review*. <https://doi.org/10.1108/imr-10-2013-0246>
- Hollenbeck, J. R., Derue, D. S., & Nahrgang, J. D. (2015). The opponent process theory of leadership succession. *Organizational Psychology Review*. <https://doi.org/10.1177/2041386614530606>
- Jang, Y. J., Zheng, T., & Bosselman, R. (2017). Top managers' environmental values, leadership, and stakeholder engagement in promoting environmental sustainability in the restaurant industry. *International Journal of Hospitality Management*. <https://doi.org/10.1016/j.ijhm.2017.03.005>
- Kreutzer, R. T., Neugebauer, T., & Pattloch, A. (2018). *Digital Business Leadership*. <https://doi.org/10.1007/978-3-662-56548-3>
- Lin, L. Y. (2010). The relationship of consumer personality trait, brand personality and brand loyalty: An empirical study of toys and video games buyers. *Journal of Product & Brand Management*. <https://doi.org/10.1108/10610421011018347>
- Linderman, K., & Chandrasekaran, A. (2010). The scholarly exchange of knowledge in Operations Management. *Journal of Operations Management*. <https://doi.org/10.1016/j.jom.2009.11.012>
- Lorinkova, N. M., & Perry, S. J. (2017). When Is Empowerment Effective? The Role of Leader-Leader Exchange in Empowering Leadership, Cynicism, and Time Theft. *Journal of Management*. <https://doi.org/10.1177/0149206314560411>

- Mumford, M. D., & Gujar, Y. (2016). Leadership. In *The Curated Reference Collection in Neuroscience and Biobehavioral Psychology*. <https://doi.org/10.1016/B978-0-12-809324-5.23679-1>
- Neuman, M. (2019). Leadership. In *The Routledge Handbook of International Planning Education*. <https://doi.org/10.4324/9781315661063-15>
- Oelze, N., Hoejmoose, S. U., Habisch, A., & Millington, A. (2016). Sustainable Development in Supply Chain Management: The Role of Organizational Learning for Policy Implementation. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.1869>
- Peterson, M. (2017). Collaborative Leadership. In *Sustainable Enterprise: A Macromarketing Approach*. <https://doi.org/10.4135/9781544308654.n8>
- Popli, S., & Rizvi, I. A. (2016). Drivers of employee engagement: The role of leadership style. *Global Business Review*. <https://doi.org/10.1177/0972150916645701>
- Praszquier, R., & Nowak, A. (2011). Social entrepreneurship: Theory and practice. In *Social Entrepreneurship: Theory and Practice*. <https://doi.org/10.1017/CBO9781139049467>
- Reiche, B. S., Bird, A., Mendenhall, M. E., & Osland, J. S. (2017). Contextualizing leadership: A typology of global leadership roles. *Journal of International Business Studies*. <https://doi.org/10.1057/s41267-016-0030-3>
- Roulin, N., & Levashina, J. (2019). LinkedIn as a new selection method: Psychometric properties and assessment approach. *Personnel Psychology*. <https://doi.org/10.1111/peps.12296>
- Rubens, A., Schoenfeld, G. A., Schaffer, B. S., & Leah, J. S. (2018). Self-awareness and leadership: Developing an individual strategic professional development plan in an MBA leadership course. *International Journal of Management Education*. <https://doi.org/10.1016/j.ijme.2017.11.001>
- Saqib Khan, M., Khan, I., Afaq Qureshi, Q., Muhammad Ismail, H., Rauf, H., Latif, A., & Tahir, M. (2015). The Styles of Leadership: A Critical Review. *Public Policy and Administration Research*.
- Schwarzmüller, T., Brosi, P., Duman, D., & Welp, I. M. (2018). How does the digital transformation affect organizations? Key themes of change in work design and leadership. *Management Review*. <https://doi.org/10.5771/0935-9915-2018-2-114>
- Shamir, B., House, R. J., & Arthur, M. B. (2018). The motivational effects of charismatic leadership: A self-concept based theory. In *Monographs in Leadership and Management*. <https://doi.org/10.1108/S1479-35712018000009009>
- Sharif, K. (2019). Transformational leadership behaviours of women in a socially dynamic environment. *International Journal of Organizational Analysis*. <https://doi.org/10.1108/IJOA-12-2018-1611>
- Soeardi, E. K., Ilhami, R., & Achmad, W. (2022). The Role of Leadership in the Development of Public Organizations. *Journal of Governance*. <https://doi.org/10.31506/jog.v7i4.17903>
- Taruffi, L., & Koelsch, S. (2014). The paradox of music-evoked sadness: An online survey. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0110490>
- Tong, Y. (2020). The Influence of Entrepreneurial Psychological Leadership Style on Organizational Learning Ability and Organizational Performance. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2020.01679>
- Wilhelm, T. (2017). Shared Leadership: The Essential Ingredient for Effective PLCs. In *Shared Leadership: The Essential Ingredient for Effective PLCs*. <https://doi.org/10.4135/9781506342818>
- Wittmer, J. L. S., & Hopkins, M. M. (2018). Exploring the Relationship Between Diversity Intelligence, Emotional Intelligence, and Executive Coaching to Enhance Leader Development Practices. *Advances in Developing Human Resources*. <https://doi.org/10.1177/1523422318778004>
- Xie, Y., Xue, W., Li, L., Wang, A., Chen, Y., Zheng, Q., Wang, Y., & Li, X. (2018). Leadership style and innovation atmosphere in enterprises: An empirical study. *Technological Forecasting and Social Change*. <https://doi.org/10.1016/j.techfore.2018.05.017>
- Xu, S., Wang, Y. C., & Wen, H. (2019). A case study for student leadership development: A goal setting perspective. *Journal of Hospitality, Leisure, Sport and Tourism Education*.