

Examining The Effect Of Innovation And Leadership On Performance Of Small And Medium Enterprises (SMEs) In Pakistan

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Abstract: *The purpose of this study is to look into the relationship between innovation, design leadership and organizational performance in Pakistan. The study was quantitative and correlational research method was used to determine the relationship. The approach used in this study is explanatory and deductive. 307 employees selected as a sample of the study. Out of 307, 209 responses were found usable for analysis after data screening. Close-ended questionnaire was used to collect the data from employees working at SMEs in Karachi (Pakistan) using non-probability purposive sampling technique. Smart PLS - 4 version was used for analysis. The suggested research model is supported by Transformational leadership theory. Different types of reliability and validity analysis were also conducted to measure the accuracy of the methods. According to the results of this study, design leadership philosophies give significantly impact on workplace innovation & organization performance. Innovation has mediating effect on Employee's performance and Leadership. In order to increase employee performance, the current study recommends managers, business owners, and policymakers in the SMEs sectors to base their choices on design leadership philosophies that support workplace innovation & organizational performance.*

Keywords: *Design Leadership, Workplace innovation, Organizational Performance and Small and medium enterprises-SMEs*

Introduction

SME's (small & medium-sized businesses) make a big difference in the way the economy and society progress. It is a sector that often develops even in the most difficult economic conditions. According to Krishnan et al. (2017) small & medium-sized businesses support competitiveness and economic growth. Like other emerging nations, Pakistan's economy likewise relies heavily on SMEs. In order to gain a competitive edge, small and medium-sized firms (SMEs) are searching for methods to encourage and maintain innovation (Casals, 2011). It is well known how significant and important SMEs are to a country's economy. Saunila (2014) stated that in the majority of industrialised and developing nations, SMEs are today among the most important economic instruments. The importance of SMEs in fostering entrepreneurship, creating jobs and enhancing innovation may be seen from a number of angles. These perspectives all contribute to a more comprehensive understanding of SMEs' contributions. Pakistan is one of the developing nations that have acknowledged the importance of SMEs as a solid cornerstone of progress. As a result, numerous governments have developed laws and initiatives to promote the expansion and prosperity of SMEs (Fahad et al., 2021).

This research has differentiated in terms of contextual contribution in previous studies. Organizational trends in this time are shifting in the direction of innovation to acquire a distinct competitive advantage. Any industry experiences innovation thanks to the people that work there who come up with fresh concepts to advance the business (Van de Ven, 2022). Based on the fundamental concept of design leadership as defined by Turner and Topalian (2002), this study aims to explore the relationship between leadership and workplace innovation and organizational performance within the context of SMEs in Pakistan. The research findings also help to shape leadership education that would boost workplace creativity and boost organizational success. The aim of this study is to investigate the potential impact of design leadership on organizational performance and to investigate the possibility of workplace innovation acting as a mediator in the relationship between organizational performance and leadership. By fulfilling these goals, the study hopes to advance knowledge of how workplace innovation and design leadership affect organizational performance and expansion in the context of Pakistani SMEs. The following research questions are the focus of this study:

R1: What is the impact of leadership on organizational performance?

R2: How does workplace innovation mediate the relation between leadership and organizational performance?

By investigating the relationship between leadership, workplace innovation, and organizational success at the person level—a topic that has not received much attention in prior studies—this study seeks to close a research gap. The study's contributions include examining how workers' opinions of workplace innovation affect their productivity and emphasizing how leadership design influences workplace innovation and creativity. In the Pakistani context, the study also looks into the mediating function that workplace innovation plays in the relationship between organizational success and leadership.

The early failure rate for SMEs in Pakistan is between 90% & 95%, according to a study by (Zulqarnain et al., 2018). In Pakistan, 95% of SMEs have had trouble surviving in their early years.

Literature Review

There are 3 variables in this study. Designing leadership is considered as independent variable. Organizational Performance is dependent variable and innovation act as a mediator between leadership and performance.

Design Leadership: The connection between creativity and leadership has received increasing attention in research (Muenjohn et al. 2018; Rowley and Oh 2020). Nishii et al. (2022) determined that leaders who fostered an inclusive atmosphere at work had been greater successful in figuring out the benefits of diversity, main to stepped forward team and organizational outcomes. Srivastava et al. (2022) conducted a meta-evaluation of styles of leadership and observed that transformational management had the strongest satisfactory affiliation with worker overall performance and organizational consequences.

Innovation: According to Gunday (2011), innovation is widely seen as a crucial element for survival and competitiveness and it is incorporated into organizational structures, procedures, goods and services. People are more likely to engage in innovative work behavior when supervisors support their employees' initiative and believe that their workplace culture will foster innovation. (Ekvall et al., 1996).

Organizational Performance: Singh et al. (2023) proposed an integrated framework for assessing organizational performance that incorporates monetary, operational, and sustainability dimensions. They argue that this holistic method presents a greater accurate illustration of an organization's general effectiveness and long-term viability.

Relation between Leadership, Innovation and Performance:

Because leaders have the power to set clear objectives and support creative initiatives from their subordinates, leadership style has been identified as one of the most significant factors influencing the

relationship between organizational performance and innovation (Torres, 2008). Schleicher et al. (2023) investigated the relationship between leadership patterns and performance manipulates effectiveness. Study determined that leadership patterns emphasizing non-stop remarks, worker improvement and aim alignment were associated with advanced employee overall performance and engagement.

Most research examines how innovation is embraced and organizational performance is improved under transformational leadership. For example, Gumusluoglu and Ilsev (2009) developed a methodology to evaluate the impact of transformational leadership on organizational and individual creativity, and they discovered that it did positively correlate with employee and business innovation. Tuuli (2013) states that research on the significance of portfolio managers' transformational leadership in project performance create atmosphere for innovation and innovation mediate the relation between transformational leadership and project performance.

Hypothesis: Based on the above explanation following hypothesis are made.

H 1: There is positive relation between Designing leadership and Organizational Performance.

H2: Workplace innovation is mediated by leadership and performance of organization.

Theoretical Foundation:

Transformational leadership theory: The relationship between transformational leadership style and improved performance is rooted in the principles of transformational leadership theory. This theory, introduced by James MacGregor Burns and later expanded by Bernard Bass, explains how leaders can inspire, motivate and transform their followers to exceed expectations and achieve extraordinary outcomes.

- Transformational leaders act as role models who inspire trust, respect and admiration. By demonstrating high ethical standards and a clear vision, they motivate followers to emulate their behavior, leading to increased commitment and enhanced performance.
- By encouraging innovation, creativity and critical thinking, transformational leaders challenge followers to question assumptions and explore new solutions. This fosters problem-solving skills and enhances organizational performance through innovative contributions.
- Transformational leaders provide personalized mentorship and support, addressing the unique needs and aspirations of each follower. This creates a sense of loyalty and improves individual and team performance by fostering personal and professional growth.

Studies have consistently shown that transformational leadership is positively correlated with organizational performance, employee satisfaction and innovation. The theory underscores how leadership that prioritizes motivation, inspiration, and development can unlock higher levels of performance, making transformational leadership a valuable model for achieving organizational success.

Research Frame work

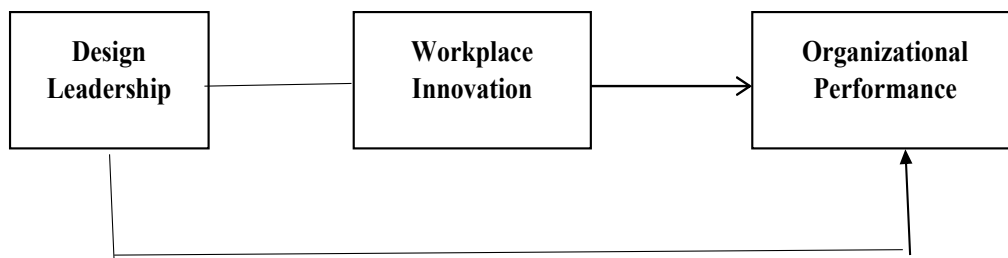


Figure 1: Research Model.

Methodology

The quantitative research approach used in this study makes use of statistical. This study's explanatory research was selected because it tests the hypotheses and clarifies the prevailing theory. In this study, the correlational sampling design was employed to investigate the possibility of a relationship between the variables showing how one variable impacts another. Our study has utilized primary data sources since we used Google-generated forms to create questionnaires as our instrument to collect new data. The questionnaire designed to collect the data was examined and approved by the two specialists in business administration. Convenient sampling, a non-probability sampling technique where the sample is selected based on the researcher's convenience, was used in this study.

Target Population and sample size:

103 Pakistani SMEs were the target audience for the questionnaire survey employed in this study. The managers, employees and owners of small and medium-sized businesses (SMEs) in Pakistan who oversee a team's operations were the research's target group. In our study, 307 respondents who worked in Pakistan's private sectors made up the sample size. Daniel Soper's (2020) online calculator was used to determine the minimum sample size of 119 needed to undertake hypothesis testing for this study. 0.3 (Medium) was the effect size, 0.80 was the statistical power, and 0.05 was the probability level.

Measures: Four facets of design leadership are included in the Design Leadership Questionnaire (DLQ), which was developed by Muenjohn et al. (2013). 18 questions made up the final Design Leadership Questionnaire (DLQ), which covered four areas of design leadership: "directing design investments" (4 questions), "expressing strategic intent" (4 questions), "imagining the future" (5 questions) and "creating and promoting an environment of innovation" (5 items). Twenty-four items were used to measure each of the four aspects of workplace innovation. The Workplace Innovation Scale (WVE) is a tool developed by Murray and Dorai in 2003. Tan and (Matzler et al., 2008) embraced the eight-item growth and profitability assessment. The degree of agreement between each item and the participants was measured using a five-point Likert scale: 1 indicates strongly disagree (SDA), 2 disagree (DA), 3 neutral (N), 4 agree (AG), and 5 strongly agree (SAG).

Data Analysis

Different statistical techniques have been applied using SPSS and SmartPLS 4. SPSS has been used to screen data and remaining analysis was done by using smart pls software.

Pilot study:

According to Teejlingen and Hundley (2001), a pilot study is required before beginning any research. For a pilot study, 251 questionnaires were randomly distributed. Respondents were asked to complete the questionnaires and the reliability of the results were then verified. The results of the reliability testing conducted for a pilot study are displayed in the first table. A few items pertaining to various variables were eliminated during the pilot study, and the questionnaire was subsequently introduced.

Table 1: Reliability Testing (*Pilot Study*):

Variable Names	N Of Items	Cronbach's Alpha
Overall	49	0.978
Design Leadership	18	0.968
Workplace Innovation	24	0.955
Organizational performance	7	0.928

Data screening

SPSS has been used to assist in data screening. The data has been examined for missing values as well as for univariate or multivariate outliers. 209 were the real sample size on which the study is based, after the superfluous data were eliminated.

Table 2: Descriptive statistics (N = 209):

	Demographic	Frequency	Percent
Gender	Female	102	49
	Male	106	51
Please indicate your age category	Between 18-25	30	14.4
	Between 26-30	95	45.7
	Between 31-40	50	24
	Between 41-50	33	15.9
Position	CEO	3	1.4
	Director	5	2.4
	First-line managers	46	22.1
	Founder	2	1
	Managing Director	2	1
	Middle Manager	41	19.7
	Team leaders	80	38.5
	Top-level managers	29	13.9

Reliability

Consistency, also referred to as reliability (Neuman et al. 2007), is quantified by the composite reliability, which is a better measure of consistency than Cronbach's alpha. Table 3 displays the Cronbach's alpha value for each latent variable rather than Cronbach's alpha, with > 0.7 denoting the value of CR for all variables (Hair et al., 2011).

Convergent validity

The degree of correlation between the construct measures is known as validity (Neuman et al., 2007). Additionally, AVE supports the assessment of convergent's veracity (Hair et al., 2011). An AVE must have a threshold of 0.5 and factor loading must be greater than 0.7 in order to have convergent validity (Hair et al., 2014). The third table displays the results of the average variance extracted, with each value exceeding 0.5. Table 3 also displays the outer loadings showing few values > 0.7 are considered as good while others are 0.6 considered as acceptable.

Table 3 : Reliability Testing and Convergent Validity:

Construct	Items	Loadings	CR	AVE
	DL11	0.604		
	DL12	0.673		
	DL13	0.635		

Design Leadership	DL14	0.669	0.92	0.549
	DL15	0.654		
	DL16	0.644		
	DL17	0.691		
	DL18	0.609		
	DL1	0.646		
	DL10	0.678		
	DL2	0.622		
	DL3	0.672		
	DL4	0.608		
	DL5	0.647		
Organizational Performance	DL6	0.623	0.914	0.603
	DL7	0.701		
	DL8	0.64		
	DL9	0.708		
	OP1	0.69		
	OP2	0.649		
	OP3	0.496		
	OP4	0.64		
	OP5	0.604		
	OP6	0.697		
	OP7	0.688		
Workplace Innovation	WP15	0.658	0.953	0.689
	WPI1	0.636		
	WPI2	0.655		
	WPI20	0.726		
	WPI21	0.754		
	WPI22	0.733		
	WPI23	0.7		
	WPI24	0.735		
	WPI25	0.775		
	WPI26	0.663		
	WPI27	0.682		
	WPI28	0.671		
	WPI29	0.698		
	WPI3	0.69		
	WPI30	0.714		
	WPI31	0.708		
	WPI32	0.709		
	WPI33	0.723		
	WPI34	0.639		
	WPI4	0.611		

WPI6	0.67
WPI7	0.719
WP18	0.705
WPI9	0.702

Discriminant validity

DV analyze to what extent shows that in a construct, not same like construct they both have a difference (Jr et al., 2014). By DV it has been analyzed that how unique measure construct is. In these values square root of AVE which is diagonal have to is higher than the inter-constructive correlate (Hair et al., 2011). The fourth table basic connection has been shown and it confirms that all the values which are diagonal are more than their rows and columns.

Table 4: Correlations of Discriminate Validity

	Design Leadership	Organizational Performance	Workplace Innovation
Design Leadership			
Organizational Performance	0.788		
Workplace Innovation	0.898	0.816	

Henseler et al. (2015) presented a new technique called HTMT to verify the information's discriminatory accuracy; for a DV to be created, the HTMT value must be less than 0.9. The DV has been established since all of the values in the table V display on the HTMT are less than 0.9.

Table 5: Heterotrait-Monotrait Ratio (HTMT) Results

	Design Leadership	Organizational Performance	Workplace Innovation
Design Leadership	0.628		
Organizational Performance	0.714	0.776	
Workplace Innovation	0.837	0.753	0.678

Table 6: Hypothesis Testing

The hypothesis has been tested using bootstrapping on Smart Pls.

Direct effects

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Design Leadership -> Organizational Performance	0.28	0.282	0.077	3.65	0.000
Design Leadership -> Workplace Innovation	0.837	0.836	0.038	21.969	0.000
Workplace Innovation -> Organizational Performance	0.518	0.513	0.089	5.835	0.000

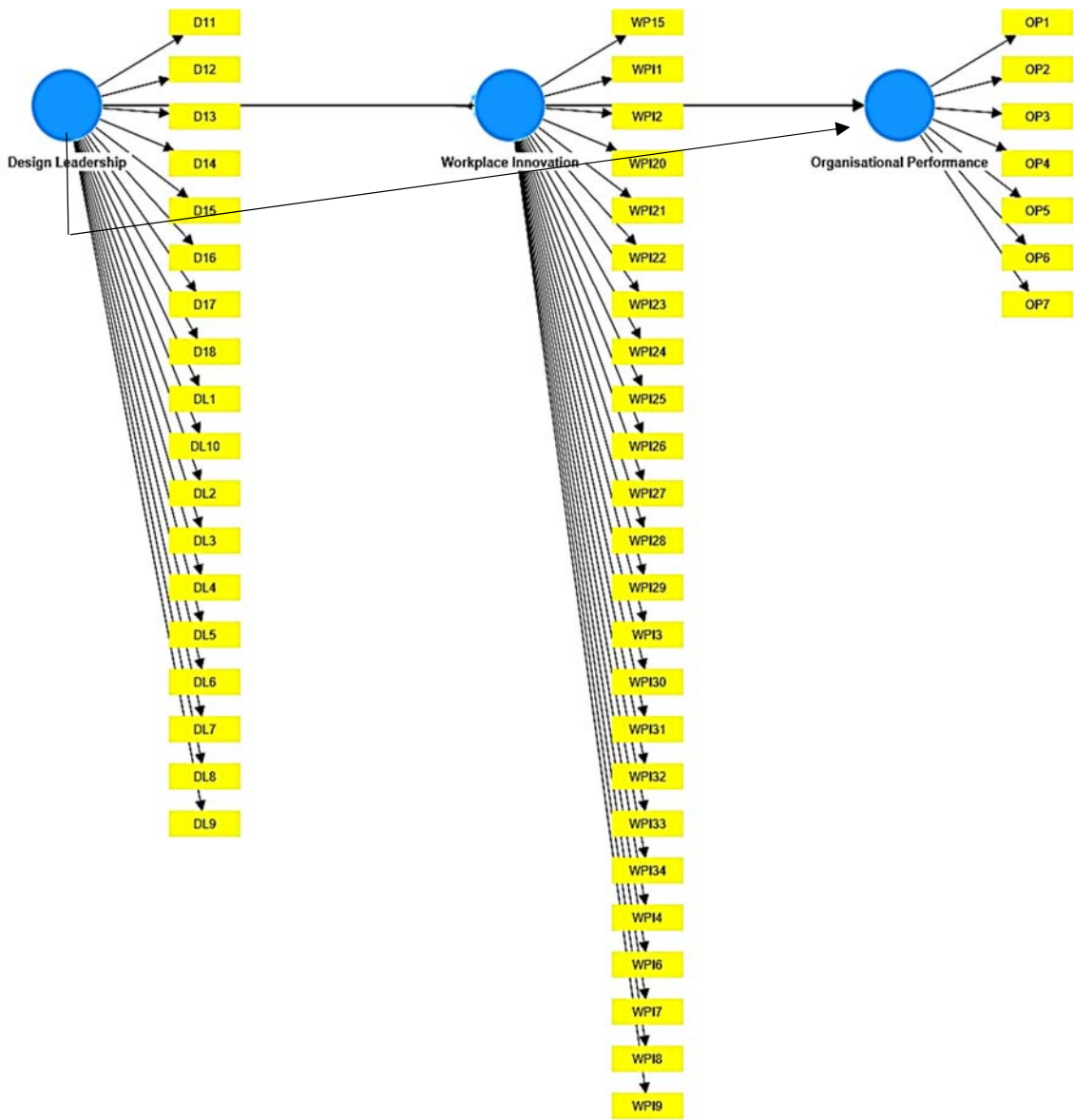
Specific indirect effects

	T value	P value
Design Leadership -> Workplace Innovation -> Organisational Performance	2.379	0.018

The hypothesis testing result shows Design leadership ($\beta = 0.28$, $p < 0.00$) has significant relation on organizational performance. Design leadership ($\beta = 0.837$, $p < 0.00$) has significant relation on workplace innovation and Workplace innovation ($\beta = 0.518$, $p < 0.00$) has significant relation on organizational performance.

For indirect effect, p-value is 0.018 and t-value is 2.379. Therefore, the results concluded that between the leadership and performance, innovation acts as a full mediator.

Figure 2: Structure Equation Modelling-SEM



Predictive relevance of the model

R² stands for the absolute effect of the exogenous (unrelated) factor upon its intrinsic DV (Jr et al., 2014). Sanchez et al. (2013) categorized R-squared into three divisions: high, medium & low. When R² exceeds more than 0.6 is regarded as high. At values around, R² is moderate. 0.3 & 0.6, and low on R² less than 0.3. R² in Table VII is showing high value of innovation and moderate value of organizational performance.

Q² evaluates the underlying model's predictive usefulness (Hair Jr et al., 2014). Q² can be assessed using the blindfolding technique. There should be a value for Q-squared greater than zero. Table VII shows how for Q² all values are greater than zero, indicating that the model fits the data.

Table 7: Predictive power of construct

Construct	R-square	Q ² predict
Organizational Performance	0.590	0.506
Workplace Innovation	0.700	0.698

Discussion and Conclusion

According to Wiltbank et al. (2006), organizations must create implementing strategic plans. Without innovation, businesses are forced to rely on established practices, similar goods and services & conventional distribution methods. As a result, businesses ought to promote in innovative workplace (Lee and Pennings, 2001). Our outcomes demonstrate designing leadership significantly impacts performance of an organization.

Businesses that are competitive are using resources & their labour to provide their offering clients innovative goods & services. Finally purpose of the present investigation was to find out the relation between leadership, innovation & organizational performance concentrate on small- & medium - sized businesses. According to the study's findings, leadership was crucial to a firm's capacity for innovation, which in turn had an indirect impact on performance. The hypothesis testing result shows Design leadership ($\beta = 0.28$, $p < 0.00$) has significant relation on organizational performance and innovation act as a mediator between leadership and performance.

This research will highlight the leadership design that can help in the organizations so that they can be innovative due to which organizational performance will be increased.

The results of this study will give the leaders of Pakistan's small and medium-sized businesses ideas for enhancing employee & organizational performance so that workers believe their employers value them and share knowledge with them, give them opportunities for training & professional growth, support them in their work as managers and fairly compensate them for their efforts.

The main barrier to entry for small businesses into the global market is a lack of innovation & imagination. Employees won't be able to use the new technology to update themselves with knowledge of the shifting requirements of the international market.

Additionally, the main difficulties faced by SMEs in Pakistan include a lack of entrepreneurial skills, a lack of an enterprise network and insufficient productive capacities (Khattak et al, 2017). An increased pace of innovation can also aid in the enhancement of the business's offerings, which will stimulate the development of other product innovation projects (Engelen & Kupper, 2012).

Implications

There are practical implications for our research on the relationship among workplace innovation, leadership and organizational performance. The findings contribute to a better understanding of how workplace innovation and leadership behavior relate in Asia's former socialist countries. The results of

the study also lend support to the idea of developing leadership development programs to boost and enhance organizational performance. According to the research, leaders who possess these qualities have an impact on team, individual and corporate creativity. This, in turn affects the expansion and profitability of the firm. The findings are consistent with research (Simpson 2009; Becan et al., 2012; Ryan and Tipu 2013) that found a leader's approach could significantly foster innovation.

Limitations and future: The participants in the study evaluated their circumstances and behaviors through a self-response survey. Therefore, the findings were presented from the standpoints of self-evaluation created biasness. Due to the constraints, further assessments should be incorporated into future research.

Short time available for gathering data from Pakistan only remained a problem. This research was to be completed in a limited time due to which large responses couldn't be gathered. Future researchers may select more nations to compare the leadership philosophies of two completely different countries in a cross-cultural study. Future researchers can gather considerably more usable data and provide results that are highly relevant by using a qualitative strategy.

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