

Impact of Transformational Leadership on Innovative Work Behavior: Mediating Role of Psychological Empowerment and Moderating Role of Proactive Personality

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Abstract

Purpose - This study examines the relationship between transformational leadership (TL) and employee innovative work behavior (IWB) in small and medium-sized enterprises (SMEs). The research explores psychological empowerment (PE) as a mediator and proactive personality (PP) as a moderator to understand their collective influence on fostering innovation. **Design/Methods/Approach**- A quantitative research design was employed, involving a structured survey of 400 employees from SMEs using simple random sampling. The sample size was determined via G-Power, with an effect size of 0.25. SPSS v25 was used for descriptive and inferential analysis, while Hayes' Process Models 1 and 7 were applied to examine mediation and moderated mediation effects. Validity and reliability were established through confirmatory factor analysis, ensuring a robust research framework. **Findings**- The results reveal that TL significantly and positively impacts IWB by fostering creativity and innovation. Psychological empowerment plays a critical mediating role, enabling employees to take initiative and propose innovative solutions. Proactive personality strengthens the positive relationship between TL and IWB, with proactive individuals exhibiting greater creativity and adaptability. These findings emphasize the importance of transformational leadership in empowering employees and cultivating innovation, especially within SMEs. **Practical Implications**- This study makes a practical contribution to the existing body of literature about the interaction between leaders and employees. The present research makes a contribution to the expanding body of literature that demonstrates how enterprises may encourage innovative in their workers and how motivate individuals to engage in activities that include innovative behavior that might potentially improve the performance of the business. **Originality/Value**- The research shows how psychological empowerment and proactive personality traits work together with social cognitive theory and social exchange theory to drive innovation in small and medium enterprises. The study demonstrates how leadership and empowerment together with

personality traits interact to provide managers with methods to boost their organizations' innovative capabilities.

Keywords Transformational leadership, proactive personality, innovative behavior, Psychological empowerment, Small medium enterprises

1. Introduction

Organizations operating in today's global business environment which experiences rapid changes and intense competition need to focus on innovation because it enables them to maintain their competitive edge and achieve sustainable growth. The ability to generate, promote, and implement novel ideas—commonly referred to as innovative work behavior (IWB) has emerged as a critical determinant of organizational effectiveness and adaptability (Wang et al., 2021; Sun & Huang, 2019). Innovative work behavior involves the development of original concepts which organizations need to execute for their operational activities and product development work within their business functions (Statsenko & Zubielqui, 2020; Coldevin et al., 2019). Organizations in knowledge-intensive industries which experience rapid changes must have their employees create new solutions to maintain their competitive position according to Audretsch and Belitski 2023. Organizations today recognize innovation as an essential capability which makes it difficult to identify what drives employees to engage in innovative work activities. Previous studies focused mostly on organizational structures together with managerial practices while recent research discovered that leadership functions as a critical factor which determines how employees think and act about innovation (Javed et al. 2021). The leadership function enables organizations to share their objectives while creating an environment that boosts employee motivation and helps them reach their full potential. Transformational leadership has emerged as a major research area because it enables leaders to motivate their teams while driving creativity and achieving exceptional outcomes (Bass & Riggio 2006 Tan & Wilderom 2023).

Transformational leadership manifests through specific leadership actions which inspire followers to leave personal interests behind and serve their organization because leaders develop an exciting organizational vision which provides intellectual development and delivers personal attention to team members (Sudibjo & Prameswari, 2021; Sudha & Tham, 2023). Leaders who practice this leadership approach strive to reach business goals while they work to help their team members achieve personal growth and become more powerful (Pham & Dang, 2023; Khalili, 2016). The leaders establish an atmosphere which supports employees to take risks share their expertise and test new ideas because these actions form the basis of innovative work practices (Fibriandhini & Faerrosa, 2022; Nguyen et al., 2021). Research evidence demonstrates that transformational leadership enables workers to generate creative ideas while they develop innovative solutions through the support of a work environment which helps them generate and put their ideas into practice (Afsar et al., 2019; Gui et al., 2022). Researchers have established that transformational leadership impacts innovative work behavior. Researchers have not yet discovered all the psychological processes

which connect these two phenomena. The study defines psychological empowerment as the factor which drives employees to work because they acquire meaning and competence and self-determination and impact in their jobs. The study shows that psychological empowerment has become a significant topic of interest for organizational research because it helps employees develop their confidence and independence and their capacity to start new initiatives. The study revealed that empowered employees together with their ability to deal with new challenges would develop proactive and creative solutions.

Transformational leaders establish psychological empowerment through three methods which include their support of employee decision-making rights and their acknowledgement of staff performance and their assistance of worker development activities (Gelaidan & Al-kwafi, 2022; Stanescu et al., 2021). Research indicates that psychological empowerment acts as a mediating mechanism that connects leadership styles with employee outcomes which include job satisfaction and performance and innovative behavior (Iqbal et al., 2021). The research showed that employees who experience greater empowerment levels tend to assume responsibility for their tasks while they test out different approaches and help their organization develop new solutions (Drazic et al., 2023). The research investigates psychological empowerment because it serves as a mediator which helps to explain how transformational leadership produces innovative work behavior. The way employees respond to leadership depends on both psychological factors and individual differences. Proactive personality serves as an essential personality trait because it shows how people take initiative to discover new possibilities which they use to create positive changes from their current situation (Ullah & Mahmood, 2023). Proactive employees in organizations do not passively follow company rules because they actively search for ways to improve operational procedures while creating new solutions that will affect their workplace (Tho, 2022; Wei et al., 2021). The research shows that these people will develop inventive work practices when their environment has leadership styles which help their development.

The relationship between transformational leadership and innovative work behavior will become more powerful because proactive personality traits will function as a strengthening factor between the two elements. Employees will convert transformational leaders' vision and inspiration and support into innovative work through their personal characteristics. Proactive individuals show greater leadership behavior to85 which they respond because this behavior enables them to take action on both opportunities and obstacles (Abid et al., 2021; Saleem et al., 2023). Proactive personality acts as a moderating factor that connects leadership with employee outcomes according to empirical research because it enables leaders to drive innovation and performance (Din et al., 2023; Abbas & Ali, 2023). Studies about the relationships between transformational leadership and psychological empowerment and proactive personality and innovative work behavior have created an increasing body of research yet there exists multiple research gaps.

First, limited research has integrated these variables into a single comprehensive framework that simultaneously examines mediation and moderation effects. Second, existing studies have primarily focused on developed countries whereas they have paid insufficient attention to developing nations such as Pakistan which possess distinct organizational and cultural characteristics (Wamalwa, 2023). Third, small and medium-sized enterprises (SMEs) face special innovation development obstacles because their resources and managerial competencies remain restricted (Afsar & Umrani, 2019).

The current research investigates how transformational leadership affects innovative work behavior through psychological empowerment which acts as a mediator and proactive personality which serves as a moderator. The study uses social cognitive theory and social exchange theory to explain how leadership affects innovation through psychological processes and individual characteristics. The research investigates Small and Medium Enterprises in Pakistan to develop a better understanding of leadership and innovation research within developing economies.

The study presents multiple contributions to academic research. The study establishes a new framework for defining innovative work behavior because it combines leadership, psychological, and personality research elements into one unified system. The study provides organizations and their leaders with practical methods to create an innovative environment through the implementation of transformational leadership, employee empowerment initiatives, and the recognition of proactive personality traits. The research results will guide organizations in developing their capacity to innovate and compete within the fast-changing business landscape.

2. Review of Literature and Hypotheses

2.1. Transformational Leadership and Innovative Work Behavior

Innovative work behavior (IWB), defined as the generation, promotion, and implementation of novel ideas, is widely recognized as a key driver of organizational competitiveness and sustainability (Sun & Huang, 2019; Wang et al., 2021). Current organizations particularly require organizations to develop IWB because they operate in fast-paced knowledge-based environments. Leadership serves as the most important organizational factor which determines whether employees will participate in innovative work activities according to Javed et al. 2021.

Transformational leadership (TL) has established itself as the most powerful leadership style which drives employees to create new ideas. Transformational leaders use vision to lead their followers while they provide intellectual stimulation and individual support and drive others through their motivational power (Bass & Riggio, 2006). Transformational leaders use their leadership abilities to establish an environment which drives employees to question existing assumptions and test new ideas and handle risks after they reach assessed staff abilities (Nguyen et al., 2021). The leaders create an atmosphere which enables people to share their ideas freely because this trust

enables them to work together with others to create new solutions (Fibriandhini & Faerrosa, 2022).

The research evidence shows that transformational leadership generates positive effects on employees' ability to work creatively. The research shows that transformational leadership improves employees' creative self-efficacy and intrinsic motivation which leads them to participate more in innovative work activities (Afsar et al., 2019; Gui et al., 2022). The research demonstrates that transformational leadership promotes knowledge sharing and collaborative behavior which help organizations achieve their innovation goals (Phong & Thanh, 2023). The research evidence demonstrates that transformational leadership facilitates employees' innovative work behavior through direct organizational impact.

H1: Transformational leadership is positively related to innovative work behavior.

2.2. Transformational Leadership and Psychological Empowerment

Psychological empowerment (PE) refers to an individual's intrinsic motivation reflected in a sense of meaning, competence, self-determination, and impact at work (Schermuly & Koch, 2022). The psychological state serves as a fundamental element which determines how employees view their work obligations within the company. The performance of empowered employees improves because they become more confident and independent while developing their ability to perform different tasks (Younas & Haque, 2023). Transformational leadership serves as a key factor which helps employees achieve psychological empowerment at their workplaces. Employees gain better control and important work value through transformational leadership because it supports their work needs and shows recognition for their individual achievements while including them in the choice-making process (Gelaidan & Al-kwafi, 2022). Transformational leaders assist employees in acquiring new skills which results in the development of their self-efficacy and competence (Pham & Dang, 2023).

Existing empirical evidence supports the positive relationship between transformational leadership and psychological empowerment. Employees who work under transformational leaders experience higher empowerment levels because their leaders trust them and maintain open communication while allowing them to participate in leadership activities (Stanescu et al., 2021). Transformational leaders establish a work environment which supports their employees and creates an atmosphere where staff members feel their contributions matter and they can impact company results. The research shows that transformational leadership will increase psychological empowerment among employees in the organization.

H2: Transformational leadership is positively related to psychological empowerment.

2.3. *Psychological Empowerment and Innovative Work Behavior*

Psychological empowerment has been widely recognized as a key antecedent of innovative work behavior. Drazic and his team discovered that employees who receive empowerment show increased tendencies to start projects and test novel concepts and solve problems which result in new ideas. People who experience psychological empowerment through their work reach the autonomy and competence needed to exceed their job duties and help their organization improve (Mukherjee & Dasgupta, 2022).

Social cognitive theory explains how people who have faith in their abilities pursue both demanding work and creative projects. Employees who achieve psychological empowerment through their work experience better self-driven motivation which drives their innovative activities (Byrne et al., 2022). The social exchange theory explains that when employees feel their organization values them and gives them power they will show positive work behavior through innovation (Iqbal et al., 2021). Empirical studies provide strong support for the positive relationship between psychological empowerment and innovative work behavior. Research shows that employees who experience higher levels of empowerment demonstrate greater creativity, adaptability, and willingness to implement new ideas (Gelaidan & Al-Hakimi, 2023). Psychological empowerment leads to increased job satisfaction and engagement which result in better innovative outcomes. The evidence presented here indicates that psychological empowerment will lead to more innovative work behavior.

H3: Psychological empowerment is positively related to innovative work behavior.

2.4. *The Mediating Role of Psychological Empowerment*

Transformational leaders create an empowering workplace atmosphere which boosts their employees' natural drive to work, which leads to the creation of new ideas. Social cognitive theory explains how transformational leaders help workers develop confidence about their abilities, which enables them to pursue innovative projects. According to social exchange theory, employees who receive supportive leadership from their supervisors will respond with positive outcomes that include creativity and innovation (Iqbal et al., 2021).

Psychological empowerment functions as a mental framework which enables these theoretical processes to function. The existing research demonstrates that psychological empowerment serves as a mediator between leadership and employee results. Studies have shown that psychological empowerment mediates the effects of various leadership styles, including transformational leadership, on performance, creativity, and job satisfaction (Stanescu et al., 2021; Drazic et al., 2023). Employees who feel empowered are more likely to internalize the vision and support provided by transformational leaders and translates it into innovative actions. The researchers propose that psychological empowerment functions as a mediator between transformational leadership and innovative work behavior.

H4: Psychological empowerment mediates the relationship between transformational leadership and innovative work behavior.

2.5. The Moderating Role of Proactive Personality

Proactive personality refers to an individual's stable tendency to take initiative, identify opportunities, and effect meaningful change in their environment (Ullah & Mahmood, 2023). Employees who possess proactive personalities demonstrate self-motivation and future-oriented thinking which enables them to perform tasks that enhance both organizational efficiency and organizational success (Tho, 2022). People who display this trait search for new ways to create value because their potential for innovation remains unaffected by external conditions. The ability of transformational leadership to foster innovative work behavior depends on the proactive personality traits of employees. Transformational leaders offer both inspiration and support to their team members but different employees will react to these leadership styles according to their personal traits. Proactive individuals use transformational leaders' provided opportunities and support to develop their innovative work activities (Abid et al., 2021).

Empirical research suggests that proactive personality strengthens the relationship between leadership and employee outcomes. Proactive individuals demonstrate higher creativity and performance results according to research when they work under supportive leadership styles (Din et al., 2023; Abbas & Ali, 2023). The individuals show increased response to leadership signals while demonstrating increased willingness to assume innovation-related risks. The research shows that transformational leadership positively affects innovative work behavior which gets strengthened through proactive personality traits.

H5: Proactive personality moderates the relationship between transformational leadership and innovative work behavior, such that the relationship is stronger for individuals with high proactive personality.

2.6. Theoretical framework

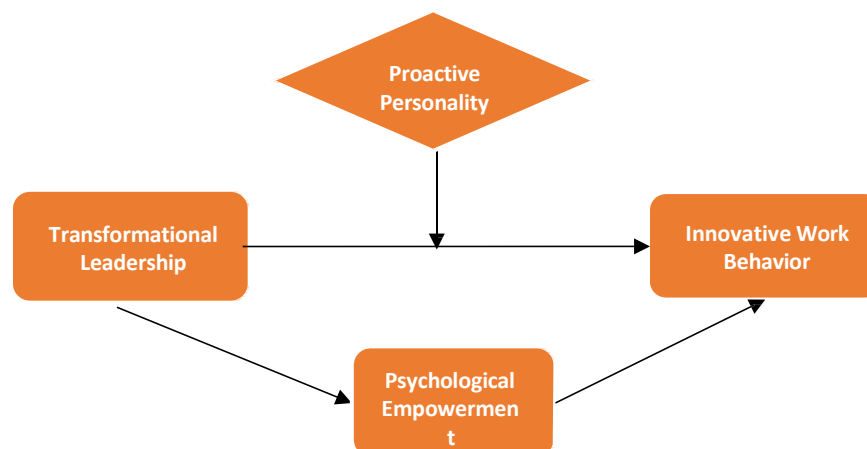


Figure 2.1: This study model

3. Methods

3.1. Research Design

The study used a quantitative cross-sectional research design to investigate how transformational leadership and psychological empowerment and proactive personality interact with each other to drive innovative work behavior. Researchers used a survey-based method to gather employee data because it enables them to measure hidden variables and because this method is commonly used in research about organizational behavior. The study follows a deductive research method which tests hypotheses that researchers developed from theoretical frameworks through statistical analysis.

3.2. Population and Sample size

The target population of this study comprised employees working in small and medium-sized enterprises (SMEs). The selection of SMEs for this study occurred because they play a vital economic development function which depends on work-based employee innovation. The work environment of these organizations requires employees to show flexibility and creativity while they need to take initiative, which makes this workplace suitable for studying innovative work behavior. The research determined a sample size of 400 respondents through G*Power analysis, which confirmed that the study would achieve enough statistical power to identify medium effect sizes. The researchers used simple random sampling to decrease selection bias, which helped improve the study results' applicability to wider populations. The researchers selected participants from multiple SMEs which operated in different industries to achieve diverse participant responses.

Table 3.1: Demographic characteristics of study participants

Variables	Categories	Frequencies	(%)
Gender	Male	245	61.3%
	Female	155	38.7%
Age	25–30 years	65	16.3%
	31–35 years	140	35.0%
	36–40 years	100	25.0%
	41–45 years	55	13.8%
	46+ years	40	10.0%
Education	BA/B.Sc	100	25.0%
	MA/M.Sc	164	41.0%
	MS/M.Phil	113	28.3%
	Above	23	5.8%
Experience	<1 year	58	14.5%
	1–5 years	237	59.3%
	6–11 years	80	20.0%
	12–17 years	16	4.0%
	≥18 years	9	2.2%
Region	Kohat	95	23.8%
	Lahore	105	26.2%
	Multan	98	24.5%
	Faisalabad	102	25.5%

The demographic profile shows that the sample contains respondents from different backgrounds who represent various demographic characteristics. The majority of participants were male (61.3%), which indicates that the sampled organizations had higher male participation rates than female participation rates. The age distribution shows that 35% of respondents belong to the 31 to 35 years age group while 25% belong to the 36 to 40 years age group, which demonstrates that the sample mainly includes people who work between their first job and their middle career stage. The study found that more than 76% of study participants belonged to the workforce age group of 40 years or younger, which created a youthful workforce in the research study. The majority of respondents in the study held advanced educational degrees, with 41% of participants holding a Master's degree and 28.3% holding MS/MPhil educational credentials. The research sample consists of highly educated participants, which proves important for investigating their innovative work behavior. The experience profile shows that the majority of participants had 1–5 years of experience (59.3%), followed by 6–11 years (20%), indicating that most respondents were relatively early in their professional careers. The regional distribution shows that all cities receive equal representation, with Lahore providing the largest percentage of respondents at 26.2% and Faisalabad following at 25.5% and Multan at 24.5% and Kohat at 23.8%. The research findings become applicable to multiple geographic areas because of this distribution pattern.

3.3. Collection and data Procedure

This study used a self-administered questionnaire which contained predetermined questions to gather their data. The study sent the questionnaire to employees through both physical and electronic distribution methods. The study provided respondents with information about its goals while they received protection of their identity which helped decrease social desirability bias. The study allowed respondents to choose whether to participate while researchers requested that they give their authentic answers without any prejudiced views. The researchers used different methods to control common method bias (CMB) through their study design which included protecting respondent identity and creating straightforward measurement tools and dividing the study variables into separate sections of the questionnaire.

3.4. Scale Measurement

This study used established measurement instruments which had been validated through previous research to assess all study variables. The participants provided their answers using a five-point Likert scale which ranged from 1 to 5.

3.4.1. Transformational Leadership

Present study used widely established measurement 11-items scale for transformational leadership which adopted from the Bass and Hoogh et al., (2004). The scale examines essential elements which include idealized

influence and inspirational motivation and intellectual stimulation and individualized consideration.

3.4.2. Innovative Work Behavior

Current study used a validated 10 items scale that measures three components of innovative work behavior which are idea generation and idea promotion and idea implementation (Jong & Den Hartog, 2010). The scale measures how much employees participate in innovative activities that their organization conducts.

3.4.3. Psychological Empowerment

The scholar measured psychological empowerment through a 12-items scale which assesses four dimensions of meaning and competence and self-determination and impact according to Par, (2011). The scale evaluates two employee characteristics which are their internal drive to work and their belief about controlling their job responsibilities.

3.4.4. Proactive Personality

The researchers used an established 9-items scale to measure proactive personality which evaluates how people develop initiatives and discover new possibilities and transform their professional surroundings according to Seibert et al., 1999).

Table 3.2: Scale Items and Source

Sr.	Variables	items	Sources
1	Transformational leadership	11	<u>Hoogh et al., 2004)</u>
2	Innovative work behavior	10	<u>Jong & Den Hartog, 2010)</u>
3	Proactive personality	9	<u>Seibert et al., 1999)</u>
4	Psychological empowerment	12	<u>Par, 2011)</u>

3.5. Data Analysis

This study used SPSS Version 25 along with Hayes' PROCESS macro to conduct their data analysis. The analysis process consisted of multiple steps which included:

✓ Descriptive Statistics and Correlation Analysis

Descriptive statistics enable researchers to study how data points connect with one another through their basic attributes.

✓ Reliability statistics

This research study examined scale reliability used Cronbach alpha values.

✓ Hypothesis Testing

The researchers used regression analysis to test direct effects which included H1 to H3. The researchers used PROCESS Model 4 to conduct mediation analysis which assessed indirect effects through bootstrapping methods that included 5000 resamples. The researchers used PROCESS Model 1 to conduct moderation analysis which studied how proactive personality traits interacted with other variables in the study. The researchers used PROCESS Model 7 to evaluate moderated mediation according to established procedures.

Bootstrapping confidence intervals were used to determine the significance of indirect effects, as this method provides more robust estimates compared to traditional approaches.

3.6. Ethical Considerations

The research followed all applicable ethical standards that govern scientific studies. The researchers explained to the participants both the study's objectives and their right to participate at their own discretion while maintaining the right to withdraw whenever they needed. The researchers maintained strict confidentiality standards which protected participant identities while using the data exclusively for academic research purposes.

4. Analysis and Results

4.1. Descriptive Statistics

The research team used descriptive statistics to analyze both the central tendency and distribution patterns of their study variables. Table 1 demonstrates that all variables were derived from 400 complete responses which contained no missing information.

Table 4.1: Summary of descriptive Statistics

Variable	N	Mean	SD	Skewness	Kurtosis
TL	400	3.62	0.947	1.041	-1.105
IWB	400	3.70	0.940	-0.604	-0.501
PE	400	3.55	0.843	-0.246	-0.754
PP	400	3.54	0.849	-0.383	-0.915

Respondents reported transformational leadership at a moderate high level which they assessed at 3.62. The respondents showed innovative work behavior at 3.70 psychological empowerment at 3.55 and proactive personality at 3.54. The data distribution shows normality because both skewness and kurtosis values stay within their accepted limits which allows for parametric analysis.

4.2. Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships among the study variables.

Table 4.2: Summary of Correlation analysis

Constructs	TL	PP	PE	IWB
TL	1			
PP	.573**	1		
PE	.581**	.528**	1	
IWB	.671**	.532**	.544**	1

Note: $N = 400$, $p < 0.01$

The results show that transformational leadership establishes a positive and strong relationship with innovative work behavior which shows a correlation of ($r = .671$, $p < 0.01$) and psychological empowerment which shows a correlation of ($r = .581$, $p < 0.01$) and proactive personality which shows a correlation of ($r = .573$, $p < 0.01$). The research demonstrates that psychological empowerment and proactive personality directly link to innovative work behavior. The research results support the proposed relationships as initial evidence.

4.3. Hypotheses Testing

Direct Effects

Regression analysis was conducted to test the direct relationships among the variables.

Table 4.3: Direct Effects

Path	R ²	β	t	p	Decisions
TL → IWB	.337	.525	12.626	.000	Accepted
TL → PE	.329	.465	12.381	.000	Accepted
PE → IWB	.278	.588	10.991	.000	Accepted

The results of the current study show that transformational leadership predicts innovative work behavior with a coefficient of .525 and a statistical significance of $p < .001$ and psychological empowerment with a coefficient of .465 and a statistical significance of $p < .001$. The research shows that psychological empowerment positively influences innovative work behavior with a coefficient of .588 and a statistical significance of $p < .001$. The research results supported hypotheses H1, H2, and H3.

Mediation Analysis

The mediating role of psychological empowerment was tested using PROCESS macro.

Table 4.4: Summary of Mediation Results

Effect Type	B	LLCI	ULCI
Total Effect	.5248	.4430	.6065
Direct Effect	.3746	.2790	.4702
Indirect Effect	.1502	.0869	.2175

Sobel Test: $Z = 4.94$, $p < .001$

The indirect effect of transformational leadership on innovative work behavior through psychological empowerment shows statistical significance because the confidence interval excludes zero. The direct effect remains significant, indicating partial mediation. Thus, H4 is supported.

Moderation Analysis

The moderating effect of proactive personality was tested using interaction analysis.

Table 4.5: Summary of Moderation Results

Path	B	SE	t	p	Result
TL × PP → IWB	.2385	.0514	4.631	.000	Supported

The interaction term between transformational leadership and proactive personality shows a significant effect ($B = .2385$, $p < .001$) which demonstrates that proactive personality enhances the connection between transformational leadership and innovative work behavior. Therefore, H5 is supported.

5. Discussions

The current research examined how transformational leadership (TL) influences psychological empowerment (PE) and proactive personality to influence employee innovative work behavior (IWB). Five hypotheses were tested and supported by the findings.

H1: Transformational Leadership positively related to Innovative Work Behavior.

The study results demonstrate that transformational leadership leads to a major positive impact on the innovative work activities of employees. This finding supports earlier studies which showed that transformational leaders boost employee creativity by recognizing their potential and promoting innovative thought. Studies such as Yasir et al. (2023), Żywiołek (2022), Eseryel (2024), and Jnaneswar & Ranjit (2023) emphasize that transformational leaders create a supportive environment that enhances self-motivation, engagement, and idea generation. TL builds employee confidence while providing intellectual stimulation which leads to increased creative solution development in the workplace.

H2: Transformational Leadership positively related to Psychological Empowerment.

Transformational leadership creates positive effects on psychological empowerment according to the research findings. Transformational leaders enable employees to experience greater autonomy and competence because they supply organizational direction and work support and grant staff members the authority to make choices (Pan et al., 2024; Burhan & Khan, 2024). The research shows that employees who receive power from their work environment will experience higher value and engagement when their supervisors offer them both support and knowledge to help them succeed (Malik et al., 2024; Ibrahim et al., 2023). The research demonstrates that TL functions as a primary factor which helps employees achieve greater psychological empowerment.

H3: Psychological Empowerment positively related to Innovative Work Behavior.

The research demonstrated that psychological empowerment had a major impact on work behavior related to innovation. Employees who receive empowerment develop greater confidence and responsibility together with increased initiative because they perceive control over their work results (Alshemmari, 2023; Kanjanakan et al., 2023). The study by Li et al. (2022) demonstrated that empowerment leads to increased creativity because it enables individuals to take risks and develop new ideas. Psychological empowerment functions as a vital driver which increases innovation in workplace settings.

H4: Psychological Empowerment mediates between transformational leadership- employee innovative work behaviors.

The study found that psychological empowerment functions as a partial mediator between transformational leadership and innovative work behavior. This research supports previous studies which demonstrate that transformational leadership increases employee creativity through psychological empowerment (Li et al., 2023; Cheng et al., 2023; Fareed et al., 2023). Empowerment serves as a psychological mechanism through which leadership impacts innovative behavior by boosting employees' perception of

their work significance and personal freedom and their ability to make a difference.

H5: Proactive personality moderates the relationship between transformational leadership- employee innovative work behaviors.

Employees with proactive traits show a higher tendency to react positively towards empowering leadership while they transform leadership support into innovative activities which they create (Zhou & Lee, 2024; Li et al., 2021). Prior studies show that proactive individuals show a higher tendency to innovate when their leadership receives support. Proactive personality leads to better results for transformational leadership which uses creativity as its main tool to achieve success.

6. Conclusion

6.1. Conclusion

The research examined how transformational leadership affects employee innovative work behavior in Pakistani SMEs through psychological empowerment which functioned as a mediator and proactive personality which served as a moderator. The researchers used simple random sampling to gather data from 400 study participants. The results showed a direct relationship between TL and IWB which reached statistical significance. The study found that PE functioned as a partial mediator while proactive personality served as a moderator for their relationship. The research shows that employees display more creative work when their leaders practice transformational leadership. TL creates a workplace environment that supports open communication while enabling employees to develop their professional skills. The organizational structure of SMEs enables transformational leaders to drive employee development and inspire innovative solutions. The study confirmed that TL training leads to psychological empowerment because it helps employees recognize their worth and ability to make valuable contributions. Psychological empowerment functions as an essential driver for innovation success in SMEs which require employees to manage several responsibilities. Autonomy empowers employees to develop creative ideas while challenging existing procedures to improve operations. The creative behaviors required for SME competitiveness depend on this sense of agency which consists of competence purpose and impact. The research demonstrates that proactive personality functions as a moderator between transformational leadership and innovative work behavior. The combination of transformational leadership with proactive employees creates an effective innovation driver because proactive employees show a tendency to utilize opportunities while they react positively to empowerment. Proactive traits together with psychological empowerment should be established by small and medium-sized enterprises who want to create an enduring culture of innovation in their unstable market environments.

6.2. Recommendations

The research results demonstrate particular solutions which help small and medium-sized enterprises develop their innovative capabilities and creative work environments. Organizations need to implement transformational

leadership practices as their main management method. The management training program requires managers to develop skills for establishing a strong organizational vision and providing intellectual development and personalized assistance to staff. Through their transformational leadership actions, managers can improve employee participation and drive organizational innovation. Organizations need to give employees more creative freedom which enables them to develop their projects to strengthen the connection between transformational leadership and innovative work behavior. The method works best for proactive people who prefer to work without supervision while they develop innovative solutions. Small and medium enterprises need to create work environments which measure and assist staff members in their psychological empowerment and proactive work behaviors. The third point shows that organizations need to establish programs which create an environment where employees can develop their skills and control their work and make a difference in their employment. The organization needs to implement three specific practices which include giving employees important tasks to complete and letting them participate in choosing their work activities and offering them continuous feedback which helps them improve. The particular procedures hold special importance for small and medium-sized enterprises because they lack complete formal operational systems. The organization needs to develop its leadership team through active recruitment of workers who exhibit proactive behavior. The organization can develop a strong workforce which drives ongoing innovation when it identifies workers who demonstrate initiative and provides them with the psychological empowerment to take action.

6.3. Implications

6.3.1. Theoretical implications

The research provides multiple theoretical advancements through its findings. The study shows that TL leads to employee loyalty and extra work through its ability to create strong, mutual relationships which drive innovation according to social exchange theory. The research establishes psychological empowerment as the essential cognitive link between leadership behavior and creative results which extends social cognitive theory. The study advances existing SME research by demonstrating how TL and PE and proactive personality traits work together to drive innovation in organizations with limited resources. The research establishes a detailed mechanism through which leadership affects innovative behavior by linking various psychological attributes to the combined model of moderated-mediation.

6.3.2. Managerial implications

The results show that TL functions as a strategic innovation tool for managers and practitioners because it operates as more than a leadership style. Managers in SMEs should establish an atmosphere that permits workers to test new ideas while making them feel respected and included in decision-making. The organization can achieve its goal of fostering innovation by implementing two practices which involve employees taking risks and the organization recognizing their creative work. Managers should implement

special programs that include skills development workshops and participative goal-setting and recognition programs to enhance employees' psychological empowerment. Employees who possess both ownership and competence will develop new ideas and solutions which they want to share with others. The study demonstrates that effective leadership development programs must establish connections with recruitment strategies. SMEs should seek to hire individuals with proactive dispositions and then support them with transformational leadership practices to maximize their innovative potential.

6.4. Study limitations

The research study contains multiple restrictions. The researchers tested two theoretical frameworks which include social cognitive theory and social exchange theory but The researchers tested two theoretical frameworks which includes social cognitive theory and social exchange theory. The research study used Khyber Pakhtunkhwa Pakistan SMEs as its research scope which limits the study results to that specific area and to smaller businesses only. The research used a deductive method with modified measurement instruments to collect data from a single point in time which prevents researchers from establishing causal links between variables. Longitudinal research designs would provide advantages to future research studies.

6.5. Future directions

Research should examine how different leadership styles which include servant leadership and inclusive leadership and authentic leadership help organizations achieve creative results during times of change. The research methodology should develop through longitudinal studies and multi-level modeling and cross-cultural research which extend beyond small and medium-sized enterprises. The multiple psychological mechanisms need research which includes emotional intelligence as a new mediating mechanism that helps employees handle creative work's emotional requirements and creative self-efficacy which represents the belief that someone can create new ideas and psychological safety which promotes people to take social risks and work engagement which combines energetic dedication to work and knowledge sharing behavior which builds collaborative innovation and job crafting which allows employees to create new work methods. The mediators present different ways to understand how leadership affects innovative work behavior, which requires researchers to test their effects in different organizational settings. The study of boundary conditions that define the leadership-innovation relationship requires additional research to test new moderating variables which impact these connections. The evaluation of technological advancement shows that it increases leadership capacity because it provides organizations with advanced tools for communication and teamwork. The expectations of leadership creativity create better innovative results because employees recognize their creative work as important when they observe their leaders display innovative behavior. The organizational identification process increases organizational results because highly dedicated employees absorb all leader communications. Organizations that support experimentation and accept failure as part of their

innovation process create an environment that helps innovation to flourish. Learning orientation and trust in leadership and cultural values which include individualism-collectivism and power distance represent effective moderators that can develop innovation leadership models which vary according to different cultural contexts. Theoretical extensions enable scholars to build an advanced framework which helps academics understand subjects better while offering practical solutions for professionals who want to develop long-lasting innovation abilities in complex organizational settings.

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