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Transformational leadership, job performance and innovation: The mediating role of knowledge sharing in Lebanese SMEs

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Abstract

This paper investigates the influence of Transformational Leadership on Job Performance and Innovative Work Behavior within the volatile context of Lebanese Small and Medium-sized Enterprises (SMEs) amid a severe national socio-economic crisis. The research aims to examine Knowledge Sharing as a critical mediating mechanism that translates leadership efforts into organizational outcomes, thereby enabling SMEs to survive. Adopting a positivist, deductive approach, a cross-sectional survey was conducted among 400 employees across diverse managerial levels and sectors. Data were analyzed using Structural Equation Modeling (SEM) to evaluate the hypothesized causal pathways and the robustness of the measurement model. The findings provide strong evidence that transformational leadership (TFL) acts as a powerful direct driver of both job performance (JP) and innovative work behavior (IWB), confirming its effectiveness even in high-pressure, resource-constrained environments. While knowledge sharing (KS) significantly influences performance and innovation, its mediating role is found to be contingent on specific contextual boundary conditions. These results conclude that leadership is a primary lever for stability in crisis-stricken markets. Practically, the study implies that SME owners should prioritize transformational behaviors and formalize knowledge sharing protocols to sustain employee output and creative problem-solving especially during periods of national instability.

Keywords: Innovative work behavior, Job performance, Knowledge sharing, Transformational leadership.

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whose unwavering encouragement made this research possible despite the cascading challenges facing Lebanon. This work is dedicated to those who remain steadfast believers that Lebanese Small and Medium Enterprises (SMEs) deserve the support and resilience necessary to reach better days. Finally, the author is grateful to the 400 employees and the SME managers who facilitated access to data, proving that even in times of crisis, the commitment to organizational growth and scientific inquiry remains a priority.
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1. Introduction

Small and Medium-sized Enterprises (SMEs) are considered the backbone of the Lebanese economy, accounting for 95% of all enterprises and employing nearly half the national workforce [1, 2]. However, since 2019, this sector has faced an unprecedented crisis compounded by currency collapse, the COVID-19 pandemic, the 2020 Beirut port explosion, and other contributing factors, resulting in a 90% decline in real wages and a significant "brain drain" of skilled human capital [3, 4]. Consequently, employee morale has plummeted, leading to "quiet quitting" behaviors in which staff perform only the minimum required to keep operations running, thereby directly threatening the innovative potential and long-term sustainability of the SME sector [5].

While innovation and performance are recognized as critical to competitive advantage [6] Lebanon's ranking in the Global Innovation Index has declined steadily, reaching 94th in 2024 [7]. Despite external reports on financial pressures, there is a critical lack of research on the internal organizational dynamics, specifically leadership and knowledge-sharing, that can sustain individual Job Performance (JP) and Innovative Work Behavior (IWB) during acute socioeconomic instability.

Despite Transformational Leadership (TFL) is a pivotal driver of resilience in crisis environments [8] the mechanisms by which TFL translates into performance and innovation in the Lebanese context remain under-examined. Knowledge Sharing (KS) is suggested to serve as the vital mediating mechanism. By exploring these variables through Structural Equation Modeling (SEM) with a sample of 400 SME employees (from different managerial levels), this research fills a contextual gap in organizational behavior literature.

2. Literature Review and Hypotheses Development

2.1. Transformational Leadership

Leadership research has evolved from trait-based to dynamic, behavior-focused approaches to meet increasing organizational complexity [9]. Transformational Leadership (TFL) emerged as a superior model for adaptation, defined by four dimensions, the "Four I's" [9, 10]. Idealized Influence, when leaders act as moral role models, eliciting loyalty and trust [10]. Inspirational Motivation, when leaders communicate a compelling vision to instill purpose and high-performance standards [11]. Intellectual Stimulation, when leaders promote critical thinking and creativity by challenging traditional assumptions, and finally, Individualized Consideration, when leaders mentor followers to address unique professional growth needs.

TFL enhances internal motivation and commitment, which are critical for job performance and innovative behavior [11]. Recent studies confirm that these dimensions foster experimentation through knowledge sharing [12] and improve performance by building trust [13]. Consequently, TFL is often operationalized using multi-scale items that align with these four pillars [14]. Despite empirical support, critics argue TFL's dimensions are overly interrelated [15] and occasionally neglect contextual nuances [16]. Nevertheless, TFL is uniquely significant for Lebanese SMEs, where inclusive structures and scarce resources make individualized consideration and trust-based relationships vital for employee loyalty [17, 18]. Furthermore, inspirational motivation provides direction amidst Lebanon's economic uncertainty [19], while SMEs' inherent adaptability facilitates intellectual engagement and knowledge sharing [20]. Ultimately, TFL fosters a resilient, innovative workforce by aligning individual growth with a collective vision [11].

H_1: Transformational leadership positively impacts job performance.

H_2: Transformational leadership positively impacts innovative work behavior.

2.2. Knowledge Sharing

Knowledge Sharing (KS) is the process by which individuals exchange information and skills, forming the basis for organizational learning [21]. Grounded in social exchange and social capital theories, KS is driven by trust and reciprocity Nahapiet and Ghoshal [22]. Nonaka and Takeuchi [21] SECI model describes this through four conversion modes, Socialization (tacit-to-tacit), Externalization (tacit-to-explicit), Combination (explicit-to-explicit), and Internalization (explicit-to-tacit).

An efficient KS culture improves performance by reducing redundancy and fuels innovation through the exchange of diverse ideas [23]. While barriers such as a lack of knowledge, trust or "knowledge hoarding" can inhibit this process [24], leadership style is a primary facilitator of the knowledge flow [25]. In Lebanese SMEs, the informal and cohesive nature of small firms facilitates tacit exchange through personal relationships. However, the scarcity of funds for formal systems and cultural norms regarding information silos pose challenges [26]. Creating an environment of mutual learning is therefore critical for these SMEs to leverage collective expertise for crisis recovery [27].

H3: Transformational leadership positively impacts knowledge sharing.

2.3 Job Performance and Innovative Work Behavior

Job performance (JP) is conceptualized as the total expected value of discrete behaviors that contribute to organizational goals [28]. Transformational leaders boost productivity by aligning employee identity with the organizational mission [13]. In SMEs, TFL's "inspirational motivation" acts as a non-financial driver that encourages employees to exceed technical requirements [25]. In the Lebanese context, this leadership style provides the psychological safety necessary for sustained productivity [4].

IWB involves the intentional creation and application of new ideas to improve performance [29]. Transformational leaders foster IWB by providing "intellectual stimulation," encouraging employees to challenge assumptions and find creative solutions to crisis-related hurdles [30]. Knowledge sharing is the interaction through which employees exchange task-related information and expertise [25]. Transformational leaders facilitate this exchange by fostering a culture of open communication and mutual appreciation [31]. By treating employees as valuable and necessary contributors to the overall work, leaders reduce barriers to the exchange of tacit, experience-based knowledge [32]. As employees share information and skills, they create a learning-friendly environment that enhances individual efficiency [23].

In the MENA region, knowledge management practices have been shown to correlate strongly with workforce effectiveness and task-related outcomes [33]. Because innovation requires the synthesis of diverse ideas, a strong KS culture is the primary engine for IWB [34] Information sharing enables teams to develop creative solutions that are essential for survival and adaptation in resource-poor environments [35].

$H_{4:}$ Knowledge sharing positively impacts job performance.

$H_{5:}$ Knowledge sharing positively impacts innovative work behavior.

2.4. The Mediating Role of Knowledge Sharing

Beyond direct effects, this study posits that the influence of TFL on performance is realized through the mobilization of shared knowledge [36]. TFL provides the trust (the "why"), while KS provides the practical information and best practices (the "how") required to perform effectively under pressure. In Lebanese SMEs, leaders act as catalysts who unlock collective intelligence to improve task outcomes [37].

Similarly, TFL promotes an environment where employees feel empowered to share insights, which fuels the innovative process [38]. By facilitating the flow of tacit knowledge through intellectual stimulation, transformational leaders enable the generation and implementation of creative solutions, making KS a vital bridge to IWB [25, 34]. Their interrelatedness forms the core of the conceptual model, suggesting an interactive dynamic where TFL sets the basis for KS, which in turn triggers important consequences for Lebanese SMEs in employee performance and innovation.

$H_{6a:}$ Knowledge sharing mediates the relationship between transformational leadership and job performance.

$H_{6b:}$ Knowledge sharing mediates the relationship between transformational leadership and innovative work behavior.

2.5. Research Gap and Objectives

While global literature supports the link between TFL and performance, a significant gap exists in understanding how these connections operate under extreme resource constraints and hyper-instability [39]. Specifically, the extent to which KS facilitates the relationship between TFL, JP, and IWB in crisis-affected SMEs is largely unexamined and whether KS can play a role in bridging the brain drain gap and contribute positively to improving performance. Without addressing this gap, Lebanese SMEs risk long-term stagnation and an inability to adapt to an increasingly volatile market.

The primary aim of this study is to investigate the extent to which KS mediates the relationship between TFL and both JP and IWB among employees in Lebanese SMEs during the ongoing economic crisis. The conceptual research model is depicted in Figure 1.

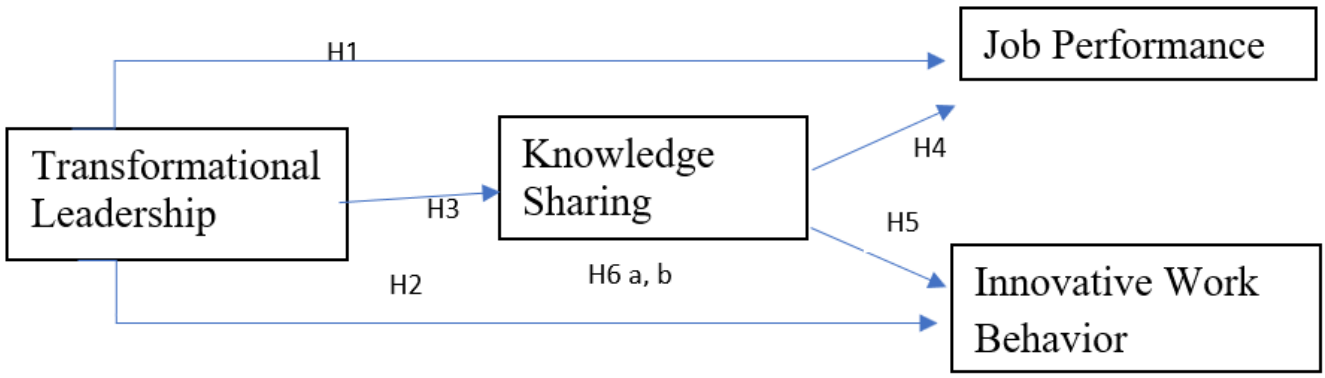

Figure 1.
Conceptual Framework.
Source: Synthesized from Moh'd Taisir Masa, et al. [40], Liu and Zainal [41] and Pham, et al. [42].

3. Methodology

3.1. Research Philosophy and Design

This section details the methodological strategy used to investigate the relationships among transformational leadership (TFL), knowledge sharing (KS), employee performance, and innovative work behavior (IWB) in Lebanese SMEs during the current economic crisis. The study adopts a positivist philosophy and a deductive approach, utilizing a realist ontology that views organizational constructs as objective, measurable phenomena. In alignment with positivism, the research maintains a value-free axiology; the researcher remains an objective observer, using standardized instruments and statistical analysis to ensure scientific rigor and eliminate personal bias [43].

Following the positivist and deductive framework, this study employs a cross-sectional survey design. Hypothesized causal directions and mediation effects are tested using Structural Equation Modeling (SEM) and advanced regression techniques to provide empirical validation of the conceptual model. Data were collected using structured digital questionnaires via Google Forms.

3.2. Measurement Instruments and Variables

The survey consists of 49 items adapted from validated scales to measure the four primary constructs. All items were rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

- Transformational Leadership (TFL): Defined as leadership that drives performance and commitment through four distinct dimensions, TFL was assessed using an 8-item version of the Multifactor Leadership Questionnaire (MLQ) as adapted by Dai, et al. [14].
- Knowledge Sharing (KS): This variable involves the exchange of both explicit and tacit knowledge for mutual learning and was measured via the 9-item Knowledge Sharing Behavior Scale [44].
- Job Performance (JP): Representing efficiency in both task and contextual responsibilities, JP was measured using the 11-item Job Performance Scale developed by Köroğlu and Çalışkan [45].
- Innovative Work Behavior (IWB): Defined as the intentional generation and promotion of new ideas within the workplace, IWB was assessed using the 9-item IWB Scale [46].

3.3. Target Population and Sampling Strategy

The target population consists of employees in Lebanese SMEs. Given Lebanon's economic instability and the lack of an exhaustive sampling frame, convenience sampling was adopted as a feasible strategy for gathering data [47]. The target sample size of 384 was determined based on two rationales:

- Population Representation: The calculation assumes a 95% confidence level (z=1.96), a maximum acceptable margin of error (e=0.05), and maximum variability (p=0.5). Using the formula $N_0 = \frac{z^2.p.(1-p)}{e^2}$.the required sample size is 384. This ensures the results are representative of the target population.
- SEM Requirements: Structural Equation Modeling (SEM) is a robust multivariate technique that requires a minimum sample size to ensure stable parameter estimates [48]. A common guideline is a minimum ratio of sample size to observed variables of 10:1[48, 49]. Aiming for N=384 satisfies both the confidence interval requirements and the statistical needs of the multivariate analysis.

3.4. Data Collection and Pilot Testing

The survey utilized validated scales to ensure construct validity. A pilot test (N=20) with Lebanese SME employees was conducted to refine clarity and internal consistency; pilot data were excluded from the final analysis. Formal introductory letters secured access, outlining the research purpose and ethical considerations. Participation was strictly voluntary, no personal identifying information (names, emails) was collected, and data were aggregated solely for statistical analysis.

3.5. Data Analysis Procedures

Quantitative analysis was conducted using JASP (v 0.95.4.0). Preliminary procedures included data cleaning, outlier detection, and handling missing values. Descriptive statistics (means, standard deviations, skewness, and kurtosis) were calculated for all demographic variables and construct items. Structural Equation Modeling (SEM) served as the primary technique for hypothesis testing to assess the structural relationships and mediation effects defined in the conceptual model.

3.6. Ethical Considerations

- The research was conducted in accordance with the ethical standards and guidelines stipulated by the Institutional Review Board (IRB) of Beirut Arab University (BAU), key measures included:
- Informed Consent: Participants received detailed study information prior to participating in the survey
- Anonymity: No personal identifiers were collected; data were reported in aggregate format to protect organizational standing.
- Data Security: Raw data are stored on password-protected, encrypted drives and are destroyed post-analysis

4. Results

The total sample size for the analysis is N=400 valid responses, which exceeds the target minimum of N=384 for both statistical power and Structural Equation Modeling (SEM) requirements. Data screening procedures showed no missing values (Valid = 400, Missing = 0). Demographic characteristics of the participants are detailed in Appendix Table 9.

4.1. Descriptive Analysis

In the descriptive analysis of construct items, mean scores ranged from 2.968 (KS7) to 4.388 (JP6) on a 5-point Likert scale. Job Performance (JP) yielded the highest item means, suggesting a tendency toward higher self-ratings on effectiveness. Conversely, Knowledge Sharing (KS) items consistently demonstrated the lowest means (e.g., KS7 = 2.968), indicating this behavior is perceived as the most challenging or least prevalent among the sampled employees. Distributions were acceptable, with standard deviations generally below 0.75, except for items KS7 and KS8.

4.2. Confirmatory Factor Analysis (CFA)

The measurement model was assessed using Confirmatory Factor Analysis (CFA) to verify that the observed items reliably and validly represent the four intended latent constructs: Transformational Leadership (TFL), Knowledge Sharing (KS), Job Performance (JP), and Individual Innovative Work Behavior (IWB). Before finalizing the model, the scales underwent purification by evaluating factor loadings and internal consistency, specifically Average Variance Extracted (AVE) and Composite Reliability (CR). To ensure robust convergent and discriminant validity, several items are removed from the initial constructs. This scale purification process was guided by the principles of parsimony and model identification. While items were excluded due to low factor loadings (< 0.50) or high residual variances (e.g., IWB3 residual variance = 0.582), the remaining items for each construct demonstrated strong, significant loadings ($p < 0.001$). According to Little, et al. [50] maintaining a core set of at least three high-performing indicators per latent variable is sufficient to achieve a robust and stable structural model while improving overall model fit (CFI = 0.962). Table 1 lists the eliminated items, while the full original scales are provided in Appendix Table 8. Subsequent analyses utilize only this refined item set.

Table 1.
Measured items, removed items, remained items and reason for items removal of the original construct (TFL, KS, JP, IWB).

Original construct	Measured Item	Removed items	Remained items	Reason for removal
TFL	TFL1 to TFL8	TFL8	TFL1 to TFL 7	Low Factor Loading (ʎ) and / or Poor Internal Consistency (Alpha, CR) for that specific item
KS	KS1 to KS9	KS4 to KS9	KS1 to KS3	Low Factor Loadings, Substantial Improvement of AVE and CR to establish Convergent Validity for the final three-item scale
JP	JP1 to JP11	JP4 to JP11	JP1 to JP3	Low Factor Loadings, Poor Internal Consistency, and Improvement of AVE and Model Fit by retaining the most representative items
IWB	IWB1 to IWB9	IWB4 to IWB9	IWB1 to IWB3	Low Factor Loadings, High Residual Variance, and Optimization of the CFA Model Fit by selecting the core three items

For the model fit, purifying the scales results in superior fit indices (CFI, TLI, RMSEA), which confirms the quality and distinctness of the four latent constructs confirming that the hypothesized four-factor structure accurately represents the collected data as detailed in Table 2.

Table 2.
CFA results with the index (X^2/df, CFI, TLI, RMSEA, SRMR), value and assessment.

Index	Value	Cut-off (Fit)
X^2/df	167.836 / 95 = 1.767	< 3.0
CFI	0.962	> 0.95
TLI/NNFI	0.952	> 0.95
RMSEA	0.044	< 0.06
SRMR	0.040	< 0.08

CFA model refinement is conducted through items removal based on three primary criteria to ensure statistical rigor: factor loadings (ʎ), suggests elimination of items loading below 0.40–0.50, as low loadings indicate insufficient variance shared with the latent construct. Convergent Validity (AVE & CR), items are removed to achieve an AVE ≥ 0.50 (e.g., for JP and IWB) or to significantly bolster Composite Reliability (CR) for variables like TFL and KS, to ensure that the construct explains more variance than measurement error. According to Table 2, the result shows an excellent fit for all indexes.

4.3. Reliability and Validity

Reliability was established using Cronbach's Alpha (α) and Composite Reliability (CR or ω). Convergent Validity are assessed via Average Variance Extracted (AVE), while Discriminant Validity are assessed using the Heterotrait-Monotrait Ratio (HTMT), as shown in the Table 3:

Table 3.
Reliability and validity.

Factor	Item	Loading (ʎ)	CR (ω)	A	AVE
TFL	TFL1-TFL7	0.538-0.696	0.788	0.805	0.368
KS	KS1-KS3	0.619-0.716	0.714	0.710	0.452
JP	JP1-JP3	0.608-0.831	0.768	0.753	0.520
IWB	IWB1-IWB3	0.646-0.857	0.801	0.797	0.585

All constructs met the accepted thresholds for reliability, with both McDonald's Omega (ω) and Cronbach's Alpha (α) coefficients exceeding 0.70. The AVE values for JP (0.520) and IWB (0.585) are above the critical 0.50 threshold. While TFL (AVE = 0.368) and KS (AVE = 0.452) fell slightly below threshold (0.50), their composite reliabilities (CR) exceed 0.70 and factor loadings remain high, then, the convergent validity of these constructs is considered adequate according to Fornell and Larcker [51] who suggest that if the AVE is less than 0.50 but composite reliability is higher than 0.60, the convergent validity of the construct remains acceptable.

4.4. Discriminant Validity

The Heterotrait-Monotrait Ratio (HTMT) is used to assess discriminant validity. Table 4 shows all HTMT values are well below the conservative 0.85 threshold (e.g., TFL ↔ KS = 0.163, JP ↔ IWB = 0.540), confirming that the constructs are empirically distinct from each other.

Table 4.
Heterotrait-monotrait ratio.

Transformational leadership (TFL)	Knowledge sharing (KS)	Job performance (JP)	Innovative work behavior (IWB)
1.000	------	------	------
0.163	1.000	------	------
0.460	0.526	1.000	------
0.453	0.390	0.540	1.000

The measurement model demonstrated satisfactory reliability, acceptable convergent validity, and strong discriminant validity, thereby justifying the use of these latent variables in the subsequent structural model. The structural analysis evaluated the hypothesized paths by first assessing the coefficient of determination (R^2) for the endogenous variables (Table 5). This was followed by an examination of the direct effects (H1 – H5) and the mediation effects (H6a-H6b).

Table 5.
Variables' R^2 and assessment.

Endogenous Variable	R^2	Assessment
Knowledge sharing (KS)	0.045	Low
Job performance (JP)	0.372	Moderate-High
Innovative work behavior (IWB)	0.368	Moderate-High

The model accounts for a substantial proportion of the variance in JP (~37%) and IWB (~37%) confirming that TFL and KS are strong predictors of these outcomes. However, the low R^2 for KS (4.5%) suggests that other, non-modeled factors are the primary drivers of knowledge-sharing behavior in this context.

4.5. Relationship between Variables

The direct effect analysis investigates the core hypothesized relationships as shown in Table 6.

Table 6.
Direct relationship between variables and result.

Hypothesis	Relationship	Std. Estimate (β)	p-value	Result
H1	TFL → JP	0.451	<0.001	Supported
H2	TFL → IWB	0.402	<0.001	Supported
H3	TFL → KS	0.212	0.012	Supported
H4	KS → JP	0.327	0.001	Supported
H5	KS → IWB	0.377	<0.001	Supported

4.6. Mediation Effect

All hypothesized direct paths were found to be statistically positive and significant ($p < 0.05$). The strongest direct relationship is from TFL to JP ($\beta = 0.451$). The mediation effects investigate whether Knowledge Sharing (KS) as an indirect link between Transformational Leadership (TFL) and the two outcome variables JP and IWB as shown in Table 7.

Table 7.
Indirect relationships (mediation effects) with results.

Hypothesis	Indirect path	Std. Estimate	p-value	Result
H6 a	TFL → KS → JP	0.069	0.031	Supported
H6 b	TFL → KS→ IWB	0.080	0.013	Supported

These results indicate that KS serves as a significant partial mediator between TFL and both JP and IWB. While TFL exerts a strong direct influence on the outcomes, it also works indirectly by fostering an environment conducive to KS, which, in turn, enhances employee performance and innovation.

5. Discussion

The present study aimed to investigate the mutually dependent relationships between Transformational Leadership (TFL), Knowledge Sharing (KS), Job Performance (JP), and Innovative Work Behavior (IWB) within the highly challenging context of Lebanese small and medium sized enterprises (SMEs). The Structural Equation Modeling (SEM) analysis provided strong support for the hypothesized theoretical model, while also highlighting unique contextual challenges regarding the drivers of KS.

The analysis provided strong, unequivocal support for the direct positive influence of TFL on both JP (H1) and IWB (H2) and from KS to both JP (H4) and IWB (H5). TFL's Resilience in Crisis: The significant paths from TFL to JP ($\beta = 0.451$) and IWB ($\beta = 0.402$) are crucial. This finding affirms the universal applicability of TFL theory (e.g., Bass & Avolio) by validating its effectiveness in an extreme, non-Western, crisis-affected context. In the volatile Lebanese SME environment, TFL provides the vision, inspirational motivation, and individualized consideration to stabilize employee commitment, maintain focus on organizational goals, and provide a sense of psychological mooring, all critical for performance sustainability and innovation fostering.

The strong influence of KS on both JP and IWB (e.g., KS → IWB, $\beta = 0.377$) underscores its role as a vital, internal strategic asset. For SMEs struggling with external resource scarcity, the internal generation and efficient circulation of tacit and explicit knowledge is directly translated into improved problem-solving (Job Performance) and the effective combination of resources to create novel solutions (Innovative Work Behavior).

The results confirmed the prerequisite relationship (H3: TFL → KS, $\beta = 0.212$) and the significant indirect effects (H6 a, H6 b), confirming that KS acts as a significant partial mediator between TFL and both JP and IWB. While TFL directly motivates employees, it also works indirectly by successfully creating an organizational climate that encourages the exchange of knowledge. This leadership style, with its emphasis on intellectual stimulation and developmental focus, fosters a culture of inquiry and mutual respect, as well as it reduces the perceived risk associated with sharing knowledge, thereby enhancing both performance and innovation through a second, indirect pathway.

The most notable contextual finding concerns the variance explained for the mediator KS. The model accounted for a remarkably low 4.5% of the variance in KS ($R^2 = 0.045$). This is a crucial finding for crisis contexts, which indicates that in the high-risk, low-trust environment characteristic of the Lebanese economic collapse, TFL is not the primary driver of Knowledge Sharing within SMEs. This low R^2 suggests that KS behavior is predominantly driven by powerful antecedents not included in this model, such as organizational culture (work ethics), trust, Psychological Safety (essential for overcoming the trust deficit), perceived organizational justice (a fair reward for sharing), peer relationships and intrinsic motivation (personal factors are more salient than formal leadership influence) and others. This finding challenges the conventional assumption of (TFL) as the leading catalyst for (KS) and strongly argues for a contextualized model that prioritizes many other factors such as safety and trust-building over purely leadership behaviors in volatile economies.

5.1. Theoretical Implications

The findings offer several significant theoretical advancements, this study provides robust empirical evidence for the direct impact and resilience of TFL in a severely distressed, non-Western SME context, which effectively extends the boundary conditions of the theory to a crisis' economy setting. The confirmation of KS as a significant mediator reinforces the importance of knowledge management as a process mechanism through which leadership influence flows to organizational outcomes, as well as adding weight to the Resource-Based View RBV in SME settings. However, the low R^2 for KS compels a theoretical reappraisal. The future theory development regarding KS in volatile environments should incorporate constructs related to risk, trust, and organizational security as more potent predictors than leadership alone.

5.2. Practical Implication

The empirical results translate into clear, actionable recommendations for SME managers and policymakers in Lebanon, given TFL's significant and direct impact on performance and innovation. SME owners must invest in leadership training focused on the four core dimensions of TFL; this is the most effective investment for maintaining morale and performance output during sustained external uncertainty. Since TFL is an insufficient standalone driver of KS, SMEs need to implement specific, formal KS platforms and systems, backed by clear organizational incentives and a commitment to

protecting those who share, to bypass the current trust deficit, and support the value of knowledge sharing for the good of SME. At the same time, the low R^2 demands other challenges, like finding how far KS is successful in different experiences, such as safety culture. Also, employees need explicit assurance that sharing knowledge does not lead to personal or professional risk, fostering the trust necessary for successful KS.

6. Conclusions

This study successfully investigated the interplay of Transformational Leadership, Knowledge Sharing, Job Performance, and Innovative Work Behavior in the challenging Lebanese SME context. It empirically validates the critical, direct role of TFL in sustaining JP and IWB during a crisis and confirms KS as a significant mediating mechanism. However, the finding that TFL is a weak predictor of KS provides a crucial contextual nuance, highlighting the overshadowing influence of the high-risk environment. The evidence serves as a vital resource for policymakers and SME leaders seeking to build organizational resilience and foster a robust knowledge economy amidst extreme economic uncertainty.

6.1. Limitations And Future Research

The use of convenience sampling limits the external generalizability of the findings to the entire population of Lebanese SME employees. The cross-sectional nature of the data collection means that definitive statements of causality cannot be made, though SEM was used to test hypothesized causal structures. The single-source survey design introduces the potential for CMV. Future models must incorporate additional variables like psychological safety, organizational trust, perceived risk, etc. to extensively understand knowledge Sharing antecedents in volatile environments, providing context for the low R^2 observed here. A longitudinal design is recommended to confirm the causal sequencing of the effects observed and to track the durability of TFL's positive influence as the economic crisis evolves or subsides.

References

[1] International Labour Organization, *Skills anticipation - Lebanon: Compiled analysis report for three sectors in Lebanon*. Geneva, Switzerland: International Labour Organization, 2023.

[2] Ministry of Economy and Trade, *Support to SMEs*. Beirut, Lebanon: Ministry of Economy and Trade, 2014.

[3] European Training Foundation, *Skills and migration country fiche: Lebanon*. Turin, Italy: European Training Foundation, 2021.

[4] I. Wahidi, M. Kertous, S. Maliki, and H. Ayoub, "Unveiling the resilience of Lebanese SMEs: The effects of multiple crises on its performance," *International Journal of Business and Management*, vol. 19, no. 1, pp. 143–155, 2024. https://doi.org/10.5539/ijbm.v19n1p143

[5] A. M. Osta, "The impact of employee engagement on intention to leave in SMEs in Lebanon: The moderating role of normative commitment," *Cogent Business & Management*, vol. 12, no. 1, p. 2501208, 2025. https://doi.org/10.1080/23311975.2025.2501208

[6] G. Gunday, G. Ulusoy, K. Kilic, and L. Alpkan, "Effects of innovation types on firm performance," *International Journal of production economics*, vol. 133, no. 2, pp. 662-676, 2011. https://doi.org/10.1016/j.ijpe.2011.05.014

[7] World Intellectual Property Organization, *Global innovation index 2024: Unlocking the promise of social entrepreneurship*. Geneva, Switzerland: WIPO, 2024.

[8] Y. Kim, "Organizational resilience and employee work-role performance after a crisis situation: Exploring the effects of organizational resilience on internal crisis communication," *Journal of Public Relations Research*, vol. 32, no. 1-2, pp. 47-75, 2020. https://doi.org/10.1080/1062726X.2020.1765368

[9] B. M. Bass, "Leadership: Good, better, best," *Organizational Dynamics*, vol. 13, no. 3, pp. 26-40, 1985. https://doi.org/10.1016/0090-2616(85)90028-2

[10] B. J. Avolio, "The “natural”: Some antecedents to transformational leadership," *International Journal of Public Administration*, vol. 17, no. 9, pp. 1559-1581, 1994. https://doi.org/10.1080/01900699408524956

[11] B. J. Avolio, B. M. Bass, and D. I. Jung, "Re-examining the components of transformational and transactional leadership using the Multifactor Leadership," *Journal of Occupational and Organizational Psychology*, vol. 72, no. 4, pp. 441-462, 1999. https://doi.org/10.1348/096317999166789

[12] S. E. Seibert, G. Wang, and S. H. Courtright, "Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review," *Journal of Applied Psychology*, vol. 96, no. 5, pp. 981-1003, 2011. https://doi.org/10.1037/a0022676

[13] T. A. Judge and R. F. Piccolo, "Transformational and transactional leadership: A meta-analytic test of their relative validity," *Journal of Applied Psychology*, vol. 89, no. 5, pp. 755–768, 2004. https://doi.org/10.1037/0021-9010.89.5.755

[14] Y.-D. Dai, Y.-Y. Dai, K.-Y. Chen, and H.-C. Wu, "Transformational vs transactional leadership: which is better? A study on employees of international tourist hotels in Taipei City," *International Journal of Contemporary Hospitality Management*, vol. 25, no. 5, pp. 760-778, 2013. https://doi.org/10.1108/IJCHM-Dec-2011-0223

[15] B. J. Tepper and P. M. Percy, "Structural validity of the multifactor leadership questionnaire," *Educational and Psychological Measurement*, vol. 54, no. 3, pp. 734-744, 1994. https://doi.org/10.1177/0013164494054003020

[16] G. Yukl, "An evaluation of conceptual weaknesses in transformational and charismatic leadership theories," *The Leadership Quarterly*, vol. 10, no. 2, pp. 285-305, 1999. https://doi.org/10.1016/S1048-9843(99)00013-2

[17] I. Matar and J. Raudeliūnienė, "A road map for enhancing the entrepreneurial knowledge potential of the lebanese small and medium-sized enterprises," *Open Economics*, vol. 1, no. 1, pp. 131-141, 2018. https://doi.org/10.1515/openec-2018-0007

[18] G. Yahchouchi, "Employees’ perceptions of Lebanese managers’ leadership styles and organizational commitment," *International Journal of Leadership Studies*, vol. 4, no. 2, pp. 127-140, 2009.

[19] M. Salameh-Ayanian, P. Lakkis, N. Jabbour Al Maalouf, and M. Makki, "Leading through uncertainty: How transformational and transactional leadership shape employee satisfaction and performance in Lebanese NGOs," *Administrative Sciences*, vol. 15, no. 5, p. 172, 2025. https://doi.org/10.3390/admsci15050172

[20] D. Kabbara, L. Attieh, and B. Fatha, "Entrepreneurship and resilience: evidence from Lebanese SMEs," *International Journal of Entrepreneurship and Small Business*, vol. 54, no. 1, pp. 130-151, 2025. https://doi.org/10.1504/IJESB.2025.142892

[21] I. Nonaka and H. Takeuchi, *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York, USA: Oxford University Press, 1995.

[22] J. Nahapiet and S. Ghoshal, "Social capital, intellectual capital, and the organizational advantage," *Academy of management review*, vol. 23, no. 2, pp. 242-266, 1998. https://doi.org/10.5465/amr.1998.533225

[23] L. Argote and P. Ingram, "Knowledge transfer: A basis for competitive advantage in firms," *Organizational Behavior and Human Decision Processes*, vol. 82, no. 1, pp. 150-169, 2000. https://doi.org/10.1006/obhd.2000.2893

[24] A. Ardichvili, V. Page, and T. Wentling, "Motivation and barriers to participation in virtual knowledge-sharing communities of practice," *Journal of Knowledge Management*, vol. 7, no. 1, pp. 64-77, 2003. https://doi.org/10.1108/13673270310463626

[25] S. Wang and R. A. Noe, "Knowledge sharing: A review and directions for future research," *Human Resource Management Review*, vol. 20, no. 2, pp. 115-131, 2010. https://doi.org/10.1016/j.hrmr.2009.10.001

[26] J. Matta, *M/SMEs in Lebanon status, strategy and outcomes*. Beirut, Lebanon: Ministry of Economy and Trade, 2018.

[27] S. Thalmann, R. Maier, U. Remus, and M. Manhart, "Connect with care: Informal knowledge protection practices to enhance knowledge sharing in networks of organizations," *VINE Journal of Information and Knowledge Management Systems*, vol. 55, no. 3, pp. 730-750, 2025. https://doi.org/10.1108/VJIKMS-02-2022-0051

[28] S. J. Motowidlo and H. J. Kell, *Job performance, in Handbook of Psychology: Industrial and Organizational Psychology, N. W. Schmitt, S. Highhouse, and I. B. Weiner, Eds*, 2nd ed. Hoboken, NJ, USA: Wiley, 2013.

[29] J. De Jong and D. Den Hartog, "Measuring innovative work behaviour," *Creativity and Innovation Management*, vol. 19, no. 1, pp. 23-36, 2010. https://doi.org/10.1111/j.1467-8691.2010.00547.x

[30] D. Zeglat and S. Janbeik, "Meaningful work and organizational outcomes: The mediating role of individual work performance," *Management Research Review*, vol. 42, no. 7, pp. 859-878, 2019. https://doi.org/10.1108/MRR-05-2018-0206

[31] H. Nam Nguyen and S. Mohamed, "Leadership behaviors, organizational culture and knowledge management practices: An empirical investigation," *Journal of Management Development*, vol. 30, no. 2, pp. 206-221, 2011. https://doi.org/10.1108/02621711111105786

[32] M. Tims, A. B. Bakker, and D. Xanthopoulou, "Do transformational leaders enhance their followers' daily work engagement?," *The Leadership Quarterly*, vol. 22, no. 1, pp. 121-131, 2011. https://doi.org/10.1016/j.leaqua.2010.12.011

[33] T. S. Suifan, A. B. Abdallah, and M. Al Janini, "The impact of transformational leadership on employees' creativity: The mediating role of perceived organizational support," *Management Research Review*, vol. 41, no. 1, pp. 113-132, 2018. https://doi.org/10.1108/MRR-02-2017-0032

[34] F. M. AlQhtani, "Knowledge management for research innovation in universities for sustainable development: A qualitative approach," *Sustainability*, vol. 17, no. 6, p. 2481, 2025. https://doi.org/10.3390/su17062481

[35] I. Nonaka and R. Toyama, "The theory of the knowledge-creating firm: Subjectivity, objectivity and synthesis," *Industrial and Corporate Change*, vol. 24, no. 1, pp. 1–20, 2015.

[36] C. Zhu and X. Chen, "High performance work systems and employee creativity: The mediating effect of knowledge sharing," *Frontiers of Business Research in China*, vol. 8, no. 3, pp. 367-387, 2014.

[37] R. M. A. Ghayad, M. A. Hamdan, and M. Hammoud, "What are the challenges that SMEs have faced during the financial crisis in Lebanon," *Review of Economics and Finance*, vol. 20, no. 1, pp. 926-936, 2022.

[38] A. Srivastava, K. M. Bartol, and E. A. Locke, "Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance," *Academy of Management Journal*, vol. 49, no. 6, pp. 1239-1251, 2006. https://doi.org/10.5465/amj.2006.23478718

[39] S. El Achi, N. Jabbour Al Maalouf, H. Barakat, and J. L. Mawad, "The impact of transformational leadership and work environment on teachers' performance in crisis-affected educational settings," *Administrative Sciences*, vol. 15, no. 7, p. 256, 2025. https://doi.org/10.3390/admsci15070256

[40] R. E. Moh'd Taisir Masa, B. Y. Obeidat, D. S. Zyod, and A. A. H. Gharaibeh, "The associations among transformational leadership, transactional leadership, knowledge sharing, job performance, and firm performance: A theoretical model," *Journal of Social Sciences (CoeS&RJ-JSS)*, vol. 4, no. 2, pp. 848-866, 2015.

[41] N. Liu and S. Zainal, "Transformational leadership and innovation work behavior: The role of perceived organizational support and knowledge sharing," *Journal of Ecohumanism*, vol. 3, no. 7, pp. 5301-5312, 2024.

[42] T. P. Pham, T. Van Nguyen, P. Van Nguyen, and Z. U. Ahmed, "The pathways to innovative work behavior and job performance: Exploring the role of public service motivation, transformational leadership, and person-organization fit in Vietnam's public sector," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 10, no. 3, p. 100315, 2024. https://doi.org/10.1016/j.joitmc.2024.100315

[43] B. Saunders, J. Kitzinger, and C. Kitzinger, "Anonymising interview data: Challenges and compromise in practice," *Qualitative Research*, vol. 15, no. 5, pp. 616-632, 2015. https://doi.org/10.1177/1468794114550439

[44] V. Vuori and J. Okkonen, "Knowledge sharing motivational factors of using an intra-organizational social media platform," *Journal of Knowledge Management*, vol. 16, no. 4, pp. 592-603, 2012. https://doi.org/10.1108/13673271211246167

[45] E. Ö. Köroğlu and A. Çalışkan, "The effect of development culture and rational sub-cultures on work performance, the mediating role of openness toward organizational change," *Türk Sosyal Bilimler Araştırmaları Dergisi,* vol. 7, no. 2, pp. 101-117, 2022.

[46] N. Ramamoorthy, P. C. Flood, T. Slattery, and R. Sardessai, "Creativity and innovation in Indian firms: An empirical investigation," *Creativity and Innovation Management*, vol. 14, no. 2, pp. 142–150, 2005.

[47] J. W. Creswell and J. D. Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 5th ed. Thousand Oaks, CA, USA: SAGE Publications, 2018.

[48] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A primer on partial least squares structural equation modeling (PLS-SEM)*, 2nd ed. Thousand Oaks, CA, USA: SAGE Publications, 2014.

[49] U. Sekaran and R. Bougie, *Research methods for business: A skill building approach*, 7th ed. Chichester, West Sussex, United Kingdom: John Wiley & Sons, 2016.
[50] T. D. Little, W. A. Cunningham, G. Shahar, and K. F. Widaman, "To parcel or not to parcel: Exploring the question, weighing the merits," *Structural Equation Modeling*, vol. 9, no. 2, pp. 151-173, 2002. https://doi.org/10.1207/S15328007SEM0902_1
[51] C. Fornell and D. F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," *Journal of Marketing Research*, vol. 18, no. 1, pp. 39-50, 1981. https://doi.org/10.1177/002224378101800104

Appendix

Table 8.
Measurement items of TFL, KS, JP, and IWB.

Transformational Leadership (TFL)	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. The manager can understand my situation and gives me encouragement and assistance.	1	2	3	4	5
2.The manager encourages me to take challenges.	1	2	3	4	5
3. I believe the manager can overcome any challenge at work	1	2	3	4	5
4. The manager encourages me to make efforts towards fulfilling the organization vision	1	2	3	4	5
5. The manager encourages me to think about problems from a new perspective.	1	2	3	4	5
6.The manager encourages me to rethink opinions that have never been doubted in the past	1	2	3	4	5
7.I believe I can complete my work under the leadership of the manager.	1	2	3	4	5
8.The manager spends time to understand my needs	1	2	3	4	5
Innovative Work Behavior (IWB)	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.I Create new ideas for difficult issues	1	2	3	4	5
2.I Search out new work methods, techniques or instruments	1	2	3	4	5
3. I Generate original solutions for problems	1	2	3	4	5
4.I Mobilize support for innovative ideas	1	2	3	4	5
5. I Acquire approval for innovative ideas	1	2	3	4	5
6. I Make important organization members enthusiastic for innovative ideas	1	2	3	4	5
7. I Transform innovative ideas into useful applications	1	2	3	4	5
8. I Introducing innovative ideas into the work environment in a systematic way	1	2	3	4	5
9. I Evaluate the utility of innovative ideas	1	2	3	4	5
Knowledge Sharing (KS)	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. Knowledge Sharing with others in the organization is valuable.	1	2	3	4	5
2. Knowledge Sharing with others in the organization is beneficial.	1	2	3	4	5
3. Knowledge Sharing with others in the organization is pleasant.	1	2	3	4	5
4. The organization supports Knowledge Sharing.	1	2	3	4	5
5. The Knowledge in the organization is located in databases and is shared efficiently	1	2	3	4	5
6. The opportunities to share Knowledge within the organization are sufficient.	1	2	3	4	5
7.It is easy to find the person with the Knowledge I need.	1	2	3	4	5
8. There are valid processes/channels to share Knowledge between different locations and departments	1	2	3	4	5

9. It is hard to share Knowledge in other ways than in discussions because it is hard to express in written form	1	2	3	4	5
Job performance (JP)	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. I have the competencies that my job requires	1	2	3	4	5
2. I work effectively/efficiently.	1	2	3	4	5
3. I understand and carry out work-related procedures.	1	2	3	4	5
4. I work in a planned and organized manner to conclude the task defined to me in full and on time.	1	2	3	4	5
5. I am eager to acquire new skills related to my job.	1	2	3	4	5
6. I take extra care and take extra responsibilities while doing my duty.	1	2	3	4	5
7. I contribute to the creation of a positive working environment in my institution.	1	2	3	4	5
8. If I encounter a situation that prevents the task from being done, I try to fix it.	1	2	3	4	5
9. I help and encourage my friends to complete their work.	1	2	3	4	5
10. Even if there are criticisms inside or outside the institution, I defend my institution.	1	2	3	4	5
11. I am proud to be a part of this institution.	1	2	3	4	5

Table 9.
Demographic information of the participants.

Demographic variables		**Percentage %**
Gender	Male	56.5
	Female	43.5
Age	18-29	56
	30-39	25.2
	40-49	12.6
	50 and above	6.2
Educational level	Non-university degree	35.1
	Bachelor degree	45.4
	Post graduate degree	19.5
Experience (in years)	1-4	37.8
	5-9	31.6
	10-14	12.6
	> 15	18
Job level (manager)	Entry level	26.4
	First line	29.1
	Middle	29.6
	Senior	14.9