

The effect of leaders' mental toughness and leadership competence on follower recognition

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Abstract: Follower recognition of leaders significantly influences organizational trust, role-model perception, and the intention to recommend leaders. While positive recognition can be shaped by leaders' behaviors and competencies, their psychological resource, namely mental toughness, may also affect followers' perceptions and evaluations. The purpose of this study was to empirically examine the effects of leaders' mental toughness and leadership competence on follower recognition within organizational contexts. Using a large-scale 360-degree feedback dataset, we analyzed responses from approximately 1,500 employees evaluating 197 senior executives in South Korean corporations. The results showed that leadership competence had a significant positive effect on follower recognition. In contrast, mental toughness did not have a direct effect on recognition but exerted a full mediating effect through leadership competence. This suggests that mental toughness is not directly perceived by followers; rather, it becomes visible when translated into leadership behaviors, which subsequently lead to positive recognition. The study contributes theoretically and practically by reframing mental toughness as a core psychological resource operating through leadership competence, rather than a mere personal trait, in shaping leader–follower dynamics.

Keywords: Follower recognition, Leader evaluation, Leadership competence, Mental toughness, Role-model perception.

1. Introduction

Since the early 2000s, leadership research has increasingly shifted its focus toward the interactive and distributed nature of leadership, moving beyond the view of leadership as an attribute residing solely in individual leaders. Concepts such as servant leadership [1], shared leadership [2] and plural leadership [3] have reconceptualized leadership as a collective and process-oriented phenomenon. This shift reflects efforts to understand leadership not as a static personal trait but as a dynamic process constructed through continuous social interaction, ultimately converging in the notion of collective leadership development [4].

Since the 2010s, the field has further emphasized a follower-centric perspective, highlighting the importance of how followers perceive and evaluate leaders as a key determinant of leadership effectiveness [5, 6]. Within this stream, follower recognition of leaders has emerged as a critical factor directly linked to organizational outcomes such as trust, role-model identification, and willingness to recommend leaders [7]. In this sense, leadership effectiveness is not solely determined by leaders' characteristics or behaviors but is socially constructed through followers' judgments and recognition.

Among the key criteria shaping follower recognition, leadership competence has been widely emphasized [8, 9]. Building on the core competency framework proposed by Spencer and Spencer [10] and Boyatzis [9], developed a comprehensive leadership competence model encompassing emotional, cognitive, and behavioral capacities such as self-awareness, emotional intelligence, communication, and relationship management Zaccaro [11] further conceptualized leadership competence as a dynamic

network in which personal attributes, knowledge, and skills interact to influence strategic thinking, situational decision-making, and change management.

In addition to leadership competence, scholars have highlighted the role of leaders' internal psychological resources in shaping recognition and effectiveness Clough and Strycharczyk [12]. Fulmer and Ostroff [13], for example, proposed the trickle-up trust model demonstrates how trust in immediate supervisors extends upward to senior leaders and the organization as a whole, thereby influencing commitment and performance. This underscores that leadership recognition is not only based on stable traits or observable behaviors but also reflects psychological processes that accumulate and transfer within organizations. Among such resources, mental toughness has gained attention as a critical characteristic that enables leaders to maintain consistent judgment and emotional regulation under stress, crises, or pressure.

Despite its significance, most prior research on mental toughness has been limited to sports psychology or individual performance contexts, leaving a gap in empirical studies exploring its impact in organizational and leadership settings. To address this gap, this study raises three research questions: first, does leaders' mental toughness influence follower recognition, including perceived effectiveness, role-model perception, and recommendation intention? Second, what is the relationship between leaders' mental toughness and their leadership competence? Third, does leadership competence significantly affect follower recognition? By addressing these questions, this study empirically investigates how leaders' mental toughness and leadership competence interact to shape follower recognition within organizational contexts. Ultimately, this research underscores the importance of leaders managing not only their abilities and competencies but also their psychological resources, thereby offering practical insights for leadership development strategies.

2. Literature Review

2.1. Concept and Characteristics of Mental Toughness

Mental toughness refers to the psychological capacity that enables individuals to maintain emotional stability and goal-directed behavior when confronted with stress, pressure, failure, or adversity [13]. Initially studied in the field of sports psychology, mental toughness has more recently gained recognition in organizational psychology and human resource development (HRD) as a vital psychological resource. Structurally, it is closely related to constructs such as resilience, hardiness, and psychological capital, and is often regarded as an integrative resource encompassing self-regulation, emotional control, and persistence toward goals in organizational settings [14].

Clough et al. [15] conceptualized mental toughness through the "4Cs model," consisting of control, commitment, challenge, and confidence. This model was later refined by Fulmer and Ostroff [13] to ensure applicability in organizational environments. The framework explains psychological endurance and self-efficacy, highlighting how individuals sustain or recover performance under pressure. It has been widely adopted in leadership coaching, assessment, and development as a practical diagnostic and developmental tool.

Empirical research demonstrates the value of mental toughness in organizational contexts. Gucciardi et al. [16] found that individuals with high levels of mental toughness display stronger engagement and superior performance in stressful work environments. Lee and Kim [17] showed that mental toughness significantly enhances psychological well-being, job satisfaction, and organizational commitment. Marchant et al. [18] reported that managers with higher levels of mental toughness exhibit more effective leadership behaviors and a greater capacity for building organizational trust. Furthermore, Lee and Kim [19] found significant differences in organizational commitment based on variations in employees' levels of mental toughness.

Leaders' mental toughness has particular implications for follower recognition. Leaders who demonstrate high levels of mental toughness are often perceived as reliable and stable figures capable of instilling trust, even in complex environments. Such perceptions are rooted in leaders' intuition, emotional intelligence, interpersonal skills, and ability to provide meaning Carver [20] and Klette [21].

Crust and Azadi [22] and Gucciardi et al. [16] similarly noted that mentally tough leaders excel in emotional regulation, goal persistence, and confidence, thereby increasing trust and acceptance from followers.

Recent studies further suggest that mental toughness should not be understood as a purely internal trait but as a resource conveyed through observable behaviors and social interactions. Miszczak [23] argued that leaders' mental toughness is transmitted to followers through their actions, influencing recognition and contributing to collective resilience. Likewise, Goleman [24] emphasized that leaders gain trust and respect when they externalize emotional resources into consistent behaviors. Taken together, these findings underscore that mental toughness translates into leadership effectiveness only when expressed through behaviors that are visible and socially recognizable.

2.2. Leadership Competence

The academic discourse on leadership has evolved across historical stages and contexts. Early trait theories emphasized the innate qualities of the "great man," focusing on the personal attributes leaders were presumed to possess [25, 26]. Subsequent approaches shifted to behavioral theories, which highlighted leaders' observable actions, and to contingency theories, which explained leadership effectiveness as the fit between leaders and situational contexts [27]. From the 1980s onward, transformational and transactional leadership models gained prominence [28, 29], underscoring leadership as a complex, multifaceted phenomenon. More recently, follower-centric perspectives have drawn attention to the ways in which followers' perceptions shape leadership processes and outcomes [5].

Amid these theoretical developments, leadership competence has been established as an integrative concept encompassing the knowledge, skills, attitudes, and personal attributes required for effective leadership Spencer and Spencer [10]. Boyatzis [9] elaborated on this framework by identifying a multidimensional set of competencies, such as self-awareness, emotional intelligence, communication, and relationship management, that enable leaders to consistently deliver superior performance. Zaccaro [11] further argued that leadership competence functions not as a static set of skills but as a dynamic network in which personal attributes, knowledge, and skills interact to shape strategic thinking, situational judgment, and change management.

Empirical evidence indicates that leadership competence not only influences individual performance but also enhances organizational outcomes. Mumford et al. [30] demonstrated that leaders' strategic thinking and problem-solving capabilities are critical to goal achievement and organizational execution. Alban-Metcalfe and Alimo-Metcalfe [31] found that relational competencies and engagement behaviors enhance trust and satisfaction among followers, ultimately contributing to organizational effectiveness and performance.

Leadership competence also plays a pivotal role in shaping follower recognition. Boyatzis and McKee [32] emphasized that emotional competencies, such as emotional intelligence, provide a foundation for building trust and respect in leader–follower relationships. Yukl et al. [33] similarly reported that competencies related to clear communication and consistent feedback significantly increase followers' recognition of leaders and their willingness to follow. These findings underscore that leadership competence not only enables leaders to achieve organizational goals but also fosters the trust and respect necessary for recognition by followers.

2.3. Follower Recognition of Leaders

Recent scholarship has emphasized that leadership is not solely the product of individual traits but is socially constructed through interactions between leaders and followers [6, 34]. From this perspective, follower perception has emerged as a decisive factor in determining leadership effectiveness [7]. Leadership outcomes are thus dynamic and relational, shaped by followers' judgments and the broader social context in which leadership is enacted.

Followers continuously observe and evaluate leaders' words and behaviors, forming judgments about whether they can be trusted and whether they are capable of achieving organizational goals. Through this evaluative process, follower recognition of leaders develops. Recognition extends beyond simple liking or favorable evaluations; it reflects followers' psychological acceptance of leaders as credible, trustworthy, and influential figures [7]. Such recognition is directly associated with organizational trust, role-model identification, and the willingness to recommend leaders to others.

Empirical studies confirm the central role of follower recognition in organizational outcomes. Podsakoff et al. [35] found that when followers perceive leaders as consistent, ethical, and competent, both leader recognition and followers' organizational citizenship behaviors increase. Heath and Sitkin [36] argued that leadership effectiveness arises not only from leaders' behaviors but also from the interaction patterns and role expectations that shape leader–follower relationships. These findings underscore that follower recognition is rooted in both emotional trust and cognitive appraisal.

Leadership competencies are particularly important in this recognition process. Yukl et al. [33] showed that clear communication and consistent feedback enhance followers' recognition and their willingness to follow. Similarly, Boyatzis and McKee [32] demonstrated that leaders' emotional competencies, such as emotional intelligence, provide the basis for trust and respect in leader–follower relationships.

Furthermore, Fulmer and Ostroff [13] introduced the “trickle-up trust” model, which explains how trust in immediate supervisors can extend upward to senior leaders and to the organization as a whole. This suggests that follower recognition is not formed independently at each hierarchical level; rather, it accumulates and transfers across organizational layers, making the quality of leader–follower relationships essential for shaping organizational-level trust and recognition.

3. Research Method

3.1. Research Model and Hypothesis Development

This study investigates how leaders' internal psychological resources, specifically mental toughness, interact with their observable leadership competence to shape follower recognition. Mental toughness is difficult for followers to directly observe; however, when expressed through leadership competence, it becomes visible and meaningful, providing a foundation for trust and recognition. Based on this logic, the research model (Figure 1) positions mental toughness as the independent variable, leadership competence as the mediating variable, and follower recognition as the dependent variable.

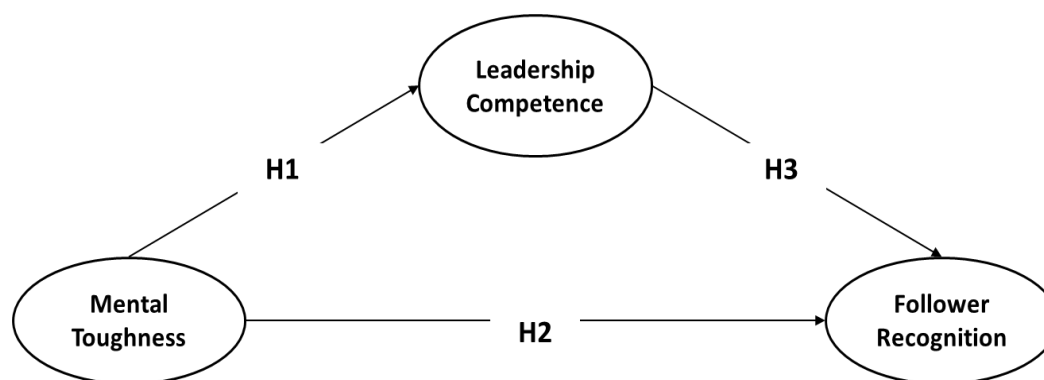


Figure 1.
Research Model.

3.1.1. Leaders' Mental Toughness and Leadership Competence

Mental toughness is defined as a core psychological resource that enables leaders to maintain consistent behaviors and effective decision-making under uncertain and stressful conditions Clough and Strycharczyk [12]. Goleman [24] emphasized that mental toughness constitutes a universal leadership

resource required of all leaders, particularly by influencing the quality of leadership behaviors through psychological stability and resilience. Similarly, Johnson [37] argued that leaders' effective behaviors are grounded in their mental models, underscoring the importance of inner psychological resources in leadership development.

Leaders high in mental toughness demonstrate strong self-regulation and emotional control, which enable them to sustain stable relationships and consistent decision-making even in crises Gucciardi et al. [16]. Marchant et al. [18] found that senior managers exhibited higher levels of mental toughness, which positively correlated with problem-solving and strategic thinking. Scarnati [38] also identified mental toughness as the psychological basis of resilience, goal orientation, and positive attitudes that support leadership behavior. Similarly, Beinecke [39] emphasized that mentally tough leaders not only drive goal achievement under challenging circumstances but also enhance the psychological stability and resilience of their teams. On this basis, the following hypothesis was proposed:

H₁: Leaders' mental toughness has a positive effect on leadership competence.

3.1.2. Leaders' Mental Toughness and Follower Recognition

Follower perceptions of leadership are shaped not only by leaders' observable behaviors but also by their internal psychological resources. Mental toughness, in particular, enables leaders to maintain steady judgment and emotional control under pressure, thereby instilling trust, stability, and respect among followers. Leaders with higher levels of mental toughness are therefore more likely to gain recognition, trust, and recommendations from followers [18].

Chen et al. [40] found that leaders' psychological capital, including mental toughness, significantly enhances leadership effectiveness and followers' respect. Karbalaiepour et al. [41] also argued that leaders with higher levels of mental toughness are more likely to be perceived as achievement-oriented and exemplary. Crust and Azadi [22] reported that mentally tough leaders more frequently display leadership behaviors that followers value. Collectively, these findings suggest that mental toughness not only influences leadership competence but also directly fosters positive follower perceptions. Accordingly, the following hypothesis was developed:

H₂: Leaders' mental toughness has a positive effect on follower recognition.

3.1.3. Leadership Competence and Follower Recognition

Leadership competence is a decisive factor in how followers perceive and evaluate their leaders. Research consistently indicates that leadership effectiveness is determined by the visibility and consistency of behavioral competencies. Boyatzis and McKee [32] argued that emotional and behavioral competencies foster trust, respect, and engagement among followers. Goleman [24] also emphasized that leadership competence is central to building trust and respect in leader–follower relationships. Carroll [42] found that higher leadership competence enhances followers' emotional trust and recognition, even mitigating gender bias in leadership perceptions Hu et al. [43]. Podsakoff et al. [35] demonstrated that leaders who clearly articulate vision and competence are more likely to earn trust, respect, and role-model status from their followers. Building on these insights, this study proposed the following hypothesis:

H₃: Leadership competence has a positive effect on follower recognition.

3.2. Measurement Variables and Data Collection

To empirically test the proposed model, data were collected through an online survey. The measurement variables were operationalized based on prior research and validated scales to ensure reliability and validity. Mental toughness is defined as a personality trait that determines an individual's attitudes and behaviors under stress, pressure, and unexpected challenges. The construct includes

emotional and life control, commitment to goals and achievement, learning orientation, risk-taking, and confidence in abilities and relationships. Mental toughness was measured using the 63-item MTQ-Plus scale developed by Clough and Strycharczyk [12]. Following factor analysis, 16 items with low reliability were removed, leaving 47 items for final analysis.

Leadership competence is defined as the integrated manifestation of leaders' knowledge, skills, behaviors, and attributes that influence not only organizational outcomes but also follower perceptions and responses. Based on the competent manager model of Boyatzis [9], a 14-item scale was developed by adapting items from 360-degree feedback tools to fit organizational and cultural contexts. Data were collected from self-assessments, supervisor ratings, and subordinate ratings.

Follower recognition is defined as followers' perceptions of leaders' influence and effectiveness. This construct includes perceived effectiveness, willingness to recommend, and role-model perception. It was measured using three items adapted from the Multifactor Leadership Questionnaire (MLQ) of Rowold [7].

Data analysis was conducted using SPSS 29.0 for descriptive statistics, exploratory factor analysis (EFA), and reliability testing, and AMOS 29.0 for confirmatory factor analysis (CFA) and structural equation modeling (SEM). Validity was assessed using standardized factor loadings, average variance extracted (AVE), composite reliability (CR), and model fit indices (GFI, CFI, RMSEA).

3.3. Demographic Information

The study targeted 197 senior executives from large South Korean corporations. Approximately 1,500 employees participated in providing 360-degree feedback on these executives. As shown in Table 1, the executives' demographic characteristics were as follows: 3% in their 30s, 36% in their 40s, 52% in their 50s, and 9% aged 60 or above. The gender distribution was 83% male and 17% female. In terms of job level, 31% were Directors, 44% Senior Directors, and 25% Executive Directors. Regarding organizational size, 5% worked in companies with fewer than 50 employees, 59% in organizations with 50–300 employees, and 37% in organizations with 300–1,000 employees.

Table 1.
Demographic Information of Survey Participants.

Category		Frequency	Percentage
Age	30s	6	3%
	40s	70	36%
	50s	103	52%
	60s and above	18	9%
Gender	Male	164	83%
	Female	33	17%
Job Level	Director	61	31%
	Senior Director	87	44%
	Executive Dir.	49	25%
Workplace size	under 50 employees	9	5%
	50–300 employees	116	59%
	300–1,000 employees	72	37%

4. Results

4.1. Reliability and Validity Analysis

The reliability and validity of the measurement instruments were assessed through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Composite reliability (CR), average variance extracted (AVE), and discriminant validity were also examined to ensure construct validity. Descriptive statistics for the main variables are presented in Table 2.

Table 2.
Descriptive Statistics of Main Variables.

Variables	N	Min.	Max.	Mean	SD	Skewness	Kurtosis
Mental Toughness	197	2.92	4.57	3.78	0.321	0.0686	-0.0885
Leadership Competence	197	1.5	4.29	3.02	0.628	-0.1679	-0.5953
Recognition	197	1	4.33	3.03	0.798	-0.576	-0.2921

Given the large number of observed variables, 47 items for mental toughness, 14 for leadership competence, and 3 for follower recognition, item parcelling strategies were applied to reduce estimation error and improve model fit. Domain-representative parcelling was used for mental toughness based on the 4Cs: control, commitment, challenge, and confidence, while item-to-construct balance parcelling was applied for leadership competence.

CFA results indicated satisfactory convergent validity (see Table 3). Factor loadings ranged from .648 to .897, exceeding the .50 threshold. CR values ranged from .857 to .963, surpassing the .70 benchmark, while AVE values ranged from .671 to .866, above the .50 criterion. Cronbach's alpha coefficients ranged from .661 to .845, indicating adequate internal consistency.

Model fit indices also indicated acceptable levels: $\chi^2(df) = 74.968$, $\chi^2/df = 2.342$, GFI = 0.931, AGFI = 0.882, NFI = 0.919, TLI = 0.932, CFI = 0.951, RMSEA = 0.083. These values demonstrate that the measurement model achieved a satisfactory fit. Discriminant validity was further confirmed, as the square root of AVE for each construct exceeded inter-construct correlations.

Table 3.
Results of Reliability and Convergent Validity Tests.

Variable	Item	Factor Loading	SE	t-value	CR	AVE	Cronbach's α
Mental Toughness	MT1	0.663			0.963	0.866	0.845
	MT2	0.773	0.126	8.821***			
	MT3	0.754	0.140	8.670***			
	MT4	0.811	0.133	9.074***			
Leadership Competence	LC1	0.856			0.920	0.794	0.661
	LC2	0.889	0.078	12.898***			
	LC3	0.702	0.083	10.616***			
Follower Recognition	FR1	0.648			0.857	0.671	0.829
	FR2	0.833	0.131	9.340***			
	FR3	0.897	0.142	9.284***			

Note: *** $p < .001$.

Model fit indices indicated acceptable levels: $\chi^2(df) = 74.968$, $\chi^2/df = 2.342$, GFI = 0.931, AGFI = 0.882, NFI = 0.919, TLI = 0.932, CFI = 0.951, RMSEA = 0.083 [44, 45]. These results demonstrate the adequacy of the measurement model (see Table 4).

Table 4.
Structural Model Fit Indices.

$\chi^2(df)$	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
74.968 (df=32)	2.342	0.931	0.882	0.919	0.932	0.951	0.083

Note: DF, Degrees of freedom; RMR, Root-mean square residual; GFI, Goodness-of-fit index; AGFI, Adjusted goodness-of-fit index; NFI, Normal fit index; TLI, Tucker-Lewis index; CFI, Comparative fit index; RMSEA, Root-mean square error of approximation.

Table 5.
Correlation matrix and AVE.

	AVE	Mental Toughness	Leadership Competence	Follower Recognition
Mental Toughness	0.866	0.931		
Leadership Competence	0.794	0.263***	0.891	
Follower Recognition	0.671	0.034***	0.337***	0.819

Note: *** $p < .001$ / The square root of AVE is shown in bold letters.

4.2. Analysis Results of Structural Model

After the reliability and validity of the measurement model were confirmed through confirmatory factor analysis (CFA), structural equation modeling (SEM) was employed to test the proposed hypotheses. The structural model was designed to analyze both the direct effects of mental toughness on leadership competence and follower recognition, as well as the indirect effect mediated through leadership competence.

As shown in Table 6, the analysis of the structural model fit produced a $\chi^2(df)$ of 74.968 and a χ^2/df ratio of 2.342, which satisfies the commonly accepted threshold of less than 3.0. Additionally, the Goodness-of-Fit Index (GFI = 0.931) and the Normed Fit Index (NFI = 0.919) both exceeded the 0.90 benchmark. The Root Mean Square Residual (RMR = 0.069), Adjusted Goodness-of-Fit Index (AGFI = 0.882), and Root Mean Square Error of Approximation (RMSEA = 0.083) all indicated acceptable fit. Moreover, the Comparative Fit Index (CFI = 0.951) and the Tucker–Lewis Index (TLI = 0.932), which reflect explanatory power independent of sample size, demonstrated that the structural model exhibited a strong overall fit.

Table 6.
Structural Model Fit.

$\chi^2(df)$	p	DF	χ^2/df	RMR	GFI	AGFI	NFI	TLI	CFI	RMSEA
74.968	.000	32	2.342	0.069	0.931	0.882	0.919	0.932	0.951	0.083

Note: DF = degrees of freedom; RMR = root mean square residual; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NFI = normal fit index; TLI = Tucker–Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

As shown in Table 7, Hypothesis 1 (H1), which proposed that mental toughness positively affects leadership competence, was supported ($\beta = 0.263$, $t = 3.176$, $p < .01$). This indicates that leaders' psychological resources significantly influence the manifestation of their leadership competence. In contrast, Hypothesis 2 (H2), which proposed a direct effect of mental toughness on follower recognition, was not statistically significant and was therefore rejected ($\beta = -0.059$, $t = -0.709$, n.s.). Hypothesis 3 (H3), which proposed that leadership competence positively affects follower recognition, was strongly supported ($\beta = 0.352$, $t = 3.978$, $p < .001$). These results suggest that leaders' behavioral competencies play a central role in shaping follower perceptions, including leadership effectiveness, recommendation intention, and role-model recognition. Conversely, the findings imply that mental toughness is not directly perceived by followers but exerts influence indirectly through the behavioral expression of leadership competence.

Table 7.
Results of Hypothesis Testing.

Hypothesis	Path	Std. β	t-value	Support
H1	Mental toughness → Leadership competence	0.263	3.176**	Accepted
H2	Mental toughness → Follower recognition	-0.059	-0.709	Rejected
H3	Leadership competence → Follower recognition	0.352	3.978***	Accepted

Note: ** $p < .01$, *** $p < .001$; n.s. = not significant.

4.3. Direct, Indirect, and Mediation Effect Analysis

Based on the results of the structural model, the direct, indirect, and total effects among the variables were calculated to further examine the existence and type of mediation effects. Path coefficients estimated by AMOS 29.0 were used for the analysis, focusing on the structural relationships among mental toughness, leadership competence, and follower recognition.

As summarized in Table 8, the direct effect of mental toughness on leadership competence was significant ($\beta = 0.263$, $p < .01$). Leadership competence also exerted a significant direct effect on follower recognition ($\beta = 0.352$, $p < .001$). In contrast, the direct effect of mental toughness on follower

recognition was not significant ($\beta = -0.059$, $p > .05$). However, the indirect effect of mental toughness on follower recognition through leadership competence was statistically significant ($\beta = 0.093$, $p < .01$).

Table 8.
Direct, Indirect, and Total Effects.

Pathway	Direct Effect	Indirect Effect	Total Effect
Mental toughness → Leadership competence	0.263**	—	0.263**
Mental toughness → Leadership competence → Follower recognition	-0.059 (n.s.)	0.093**	0.093**
Leadership competence → Follower recognition	0.352***	—	0.352***
Mental toughness → Follower recognition	-0.059 (n.s.)	—	-0.059 (n.s.)

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; n.s. = not significant

5. Discussions and Conclusion

This study empirically examined how leaders' mental toughness influences leadership competence and follower recognition by employing structural equation modeling. First, the findings revealed that mental toughness significantly enhances leadership competence. This suggests that psychological resources such as emotional control, persistence, risk orientation, and confidence strengthen the inner foundation of leaders, which in turn supports the development of behavioral competencies, including strategic thinking, problem-solving, and persuasion. These results are consistent with prior studies, Marchant et al. [18], Scarnati [38], Beinecke [39] and Gucciardi et al. [46] reinforce the 4Cs model proposed by Clough and Strycharczyk [12]. Mental toughness should therefore be understood not simply as a personal disposition but as a core psychological resource that underpins leadership effectiveness in organizational settings.

Second, leadership competence was found to play a crucial role in shaping follower recognition. Followers observe leaders' behaviors continuously, and their judgments of trust and respect are grounded in the visibility and consistency of these behaviors. This result supports prior research indicating that behavioral competencies are central to fostering follower trust, respect, recommendation, and role-model perception [7, 24]. The findings thus highlight that follower recognition is not based on superficial impressions but rather on consistent, observable leadership competence.

Third, the study found no direct relationship between mental toughness and follower recognition. Instead, mental toughness influenced recognition only indirectly, through leadership competence. This indicates that psychological resources such as mental toughness are not readily perceived by followers unless translated into concrete behaviors. This finding aligns with Mischak [23], who argued that leaders' internal resources gain social significance only when externalized in consistent actions. Among the dimensions of mental toughness, emotional control and commitment may be more easily recognized by followers, thereby serving as key channels through which trust and recognition are built.

Taken together, these findings underscore that mental toughness should be conceptualized as a socially transmittable resource. When expressed through consistent leadership behaviors, it not only benefits individual leaders but also contributes to team-level psychological safety and organizational resilience.

This study confirms that trust in immediate leaders can extend to senior leadership and the broader organization, consistent with the trickle-up trust model of Fulmer and Ostroff [13]. Trust is not formed in isolation at each hierarchical level but develops through relationships with direct leaders and is transferred upward across organizational layers. This pattern mirrors the mediating role of leadership competence identified in this study, illustrating that leaders' psychological resources influence follower perceptions only when expressed as competencies that followers can observe and evaluate.

From a theoretical standpoint, the study redefines mental toughness as a dynamic resource rather than a fixed psychological trait. Whereas previous research largely examined mental toughness in sports psychology or individual performance contexts, the present findings demonstrate how mental toughness operates within organizational leadership by being transmitted into recognition through behavioral competence. In doing so, the study contributes to a social constructionist view of leadership

and extends the assertion by DeRue and Ashford [5] that mental toughness can enhance not only individual resilience but also collective stability within teams and organizations.

From a practical perspective, the results suggest that leadership development programs should not treat mental toughness solely as a personality indicator. Instead, assessments of mental toughness should be combined with coaching and training strategies that help leaders translate their psychological resources into observable competencies. For instance, integrating mental toughness diagnostics with leadership competence assessments in debriefing sessions can enhance leaders' self-awareness and reflection, facilitating targeted behavioral development. Furthermore, training interventions such as attention regulation, anxiety control, visualization, and goal-setting may help leaders externalize mental toughness in ways that foster recognition, trust, and psychological safety at both individual and team levels.

However, this study has several limitations that provide avenues for future research. First, although SEM was used to test the hypothesized relationships, additional psychological constructs such as emotional intelligence, psychological well-being, and psychological safety may also shape follower recognition. Future research should incorporate such mediators and moderators to refine the model. Second, this study relied on composite scores for mental toughness, but subdimensions may vary in their visibility to followers and in how they influence perceptions. Future studies could examine the differential effects of each subdimension and employ multidimensional measures of follower recognition that capture trust, respect, and willingness to follow. Relationship factors such as interaction frequency and emotional closeness should also be considered, as they may influence recognition processes. Third, the data were drawn from senior executives in large South Korean corporations, where hierarchical and command-oriented cultures may shape follower recognition differently from other contexts. Comparative studies across public organizations, startups, and multinational firms could help distinguish universal from culture-specific aspects of the relationships among mental toughness, leadership competence, and follower recognition.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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