



The Effect of Managers' Soft Governance on Employees' Knowledge Sharing in Government Organizations of Guilan Province: A Structural Equation Modeling Approach

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Abstract

The present study aimed to examine the effect of managers' soft governance on employees' knowledge sharing in government organizations of Guilan Province using a structural equation modeling approach. In terms of purpose, the study was developmental, and in terms of methodology, it was descriptive-analytical. The statistical population consisted of managers and employees of government organizations in Guilan Province, and the sample size was determined as 382 participants using Cochran's formula. Convenience non-probability sampling was employed, and data were collected using a questionnaire. Structural equation modeling was used to analyze the data. The findings indicated that soft governance had a direct and significant effect on knowledge sharing, with a path coefficient of 0.857. In addition, the dimensions of soft governance, including perceived support (0.741), organizational justice (0.632), and participation (0.613), made the greatest contributions to explaining the variance in knowledge sharing. The results indicate that strengthening the soft dimensions of governance can provide an appropriate foundation for facilitating knowledge-sharing processes in government organizations.

Keywords: *Soft Governance, Knowledge Sharing, Government Organizations*

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1. Introduction

In contemporary public organizations, the effectiveness of governance increasingly depends not only on formal structures, regulations, hierarchical authority, and administrative procedures, but also on the quality of relational, behavioral, and cultural mechanisms through which managers influence employees. Public-sector organizations operate in environments characterized by growing complexity, rapid technological change, increasing expectations for transparency and responsiveness, and the need to make effective use of organizational knowledge. Under these conditions, traditional command-and-control mechanisms alone are insufficient to ensure adaptive performance and sustainable organizational effectiveness. Instead, managerial approaches that emphasize trust, participation, fairness, support, ethical conduct, open

communication, organizational learning, and respectful interpersonal relationships have become increasingly important. These relational mechanisms can be conceptualized within the broader framework of soft governance, which focuses on influencing organizational behavior through social, normative, cognitive, and interpersonal processes rather than solely through formal authority. Recent scholarship on leadership and organizational transformation similarly emphasizes that leaders increasingly require behavioral and relational competencies that enable employees to participate, learn, collaborate, and respond effectively to changing organizational demands [1, 2].

Soft governance can therefore be understood as a form of organizational governance in which managers influence employee behavior through supportive relationships, organizational justice, trust, participation, ethical leadership,



communication, organizational learning, and humility. Rather than relying primarily on coercive or bureaucratic control, soft governance creates an organizational environment in which employees perceive that they are valued, treated fairly, involved in organizational affairs, and encouraged to communicate and learn. This approach is particularly relevant in knowledge-intensive organizational environments because knowledge cannot be effectively extracted, transferred, or shared merely through formal rules. Knowledge sharing frequently depends on employees' willingness to communicate their experience, ideas, professional insights, and tacit knowledge with colleagues. Leadership research has demonstrated that contemporary organizational transformation requires leaders to integrate strategic direction with interpersonal and behavioral capabilities, because employees' responses to change depend substantially on how leadership is exercised in everyday organizational interactions [3, 4].

Knowledge sharing is one of the central processes of knowledge management and refers to the exchange, dissemination, and transfer of information, expertise, skills, experiences, and insights among individuals and organizational units. Its importance is particularly evident in public organizations, where the accumulation of experience among employees constitutes an important organizational resource. When knowledge is not shared, organizations may become dependent on individual employees, repeatedly reproduce the same errors, and fail to convert personal expertise into organizational capability. Conversely, effective knowledge sharing contributes to collective learning, improved problem solving, innovation, coordination, decision quality, and organizational adaptability. Studies focusing on digitally transformed organizations have similarly highlighted the importance of organizational learning and the development of information and technological capabilities as mechanisms through which leadership contributes to sustainable organizational performance [5]. Thus, the creation of conditions that motivate employees to exchange knowledge is not simply a technical knowledge-management problem but is closely associated with governance and leadership processes.

The importance of leadership and governance becomes even more apparent when knowledge sharing is considered a discretionary organizational behavior. Employees are not always able or willing to codify and share what they know, particularly when knowledge is tacit, experience-based, or perceived as a source of personal influence. Employees may withhold knowledge when they perceive organizational

injustice, distrust managers, experience low psychological support, or believe that participation is not genuinely valued. By contrast, supportive and fair managerial behavior can reduce interpersonal risk and create a climate in which employees feel more secure in communicating ideas and expertise. The literature on transformational and value-oriented leadership indicates that leadership can shape organizational culture, employee attitudes, and organizational outcomes by developing shared values, supportive relationships, and collective orientations [6]. Accordingly, the soft governance perspective provides an appropriate theoretical foundation for explaining why managerial behavior may facilitate or inhibit employees' willingness to share knowledge.

One of the most important dimensions of soft governance is perceived organizational and managerial support. Perceived support reflects employees' beliefs that managers and the organization value their contributions, recognize their efforts, and care about their professional needs. Such perceptions can strengthen reciprocal relationships between employees and the organization. When employees experience supportive managerial behavior, they are more likely to regard knowledge sharing as a contribution to a collective system from which they themselves also benefit. Supportive leadership may also strengthen commitment and reduce the fear that knowledge sharing will diminish an employee's status or replaceability. Contemporary studies of leadership in technologically changing workplaces demonstrate that managerial competence increasingly involves the ability to guide employees through uncertainty, provide meaningful support, and create conditions for effective performance [4, 7]. Although these studies have largely examined digital contexts, their implications extend to soft governance because both perspectives emphasize managerial capacities that create enabling rather than merely controlling organizational environments.

Organizational justice represents another fundamental component of soft governance. Employees continuously evaluate whether organizational decisions, procedures, resource allocations, and interpersonal interactions are fair. Procedural justice concerns the fairness of decision-making processes, distributive justice concerns the fairness of outcomes and resource allocation, and interactional justice concerns respectful and appropriate interpersonal treatment. These perceptions can directly influence employees' willingness to engage in cooperative behaviors that extend beyond formal job requirements. Knowledge sharing is particularly sensitive to perceptions of fairness because

sharing expertise entails a voluntary investment of time and cognitive resources. When employees perceive inequity, they may limit cooperation or withhold knowledge as a means of protecting personal resources. In contrast, fair organizational treatment can promote reciprocity and strengthen employees' identification with collective objectives. Research on leadership and organizational transformation has increasingly emphasized the need for leaders to combine technological or strategic competencies with human-centered and relational competencies in order to sustain organizational adaptation [1, 8].

Trust is closely related to organizational justice but constitutes a distinct governance mechanism. Knowledge exchange often involves vulnerability: employees may expose incomplete ideas, reveal mistakes, disclose valuable expertise, or depend on others to use shared information responsibly. Consequently, organizational trust reduces the perceived interpersonal risks associated with knowledge sharing. Trust in managers can be strengthened through integrity, competence, consistency, and openness. These characteristics help employees predict managerial behavior and create confidence that contributions will not be misused. Research on digital and organizational leadership similarly shows that successful leadership requires capabilities that extend beyond technical knowledge to include credibility, communication, and the capacity to navigate complex relational environments [2]. Leader competence is therefore relevant not only to organizational transformation but also to creating the conditions under which employees are prepared to exchange valuable knowledge.

Employee participation is another central element of soft governance because participatory environments provide employees with opportunities to express views, engage in consultation, contribute to decision-making, exercise self-management, and assume responsibility. Participation can transform employees from passive recipients of managerial decisions into active contributors to organizational processes. In participatory environments, knowledge sharing becomes embedded in decision-making itself, because employees must articulate experience and expertise in order to contribute meaningfully. Visionary and inclusive leadership studies suggest that leaders can encourage proactive employee behavior by connecting employees with broader organizational purposes and fostering a sense of inclusion in leadership processes [9]. Such findings are relevant to soft governance because participation can increase psychological ownership and motivate employees to contribute knowledge rather than retain it individually.

Ethical leadership also occupies an important position in soft governance. Ethical leaders demonstrate fairness, people orientation, appropriate power sharing, role clarification, ethical guidance, and consistency between stated values and actual behavior. These behaviors can establish normative expectations regarding cooperation and responsible conduct. When managers behave ethically, employees are more likely to perceive the organizational environment as predictable and legitimate, thereby strengthening trust and interpersonal openness. In public organizations, ethical leadership has particular significance because managers are expected to exercise authority in accordance with public values, fairness, accountability, and service-oriented principles. Although much contemporary leadership research has examined digital transformation, it consistently shows that effective leadership requires broad competencies related to people management, organizational culture, strategic direction, and change facilitation [3, 10]. These competencies overlap strongly with the behavioral dimensions embedded in soft governance.

Communication constitutes the operational infrastructure through which many soft governance practices are implemented. Timely, accurate, complete, and reciprocal communication enables employees to understand organizational expectations, coordinate activities, reduce uncertainty, and receive feedback. Inadequate communication can fragment organizational knowledge, create information asymmetries, and weaken trust. Conversely, communication systems that enable dialogue can transform individual knowledge into shared organizational understanding. Digital transformation research further demonstrates that leadership effectiveness increasingly depends on the ability to manage communication across conventional and digitally mediated work settings. Bellis et al. showed that digital leadership and organizational agility are central to navigating hybrid organizational environments and fostering innovation [8]. Similarly, research in educational organizations demonstrates that leadership can influence technology integration and employee behavior by shaping the conditions under which information, guidance, and resources are exchanged [11].

Organizational learning represents another key dimension linking governance and knowledge sharing. Organizational learning involves processes through which individuals and groups acquire, interpret, transfer, and institutionalize knowledge. Leadership can promote organizational learning by clarifying missions and goals,

delegating authority, facilitating knowledge transfer, and encouraging teamwork and collaborative problem solving. These mechanisms create opportunities for knowledge exchange and help convert individual learning into organizational capability. Empirical evidence indicates that digital leadership can contribute to sustainable organizational performance through IT capabilities and organizational learning [5]. Likewise, studies of digital transformation have shown that organizational resilience depends not merely on technology adoption but also on leadership and higher-order organizational capabilities that enable organizations to learn and adapt [12]. These findings support the proposition that learning-oriented governance practices may substantially strengthen knowledge-sharing processes.

Humility is a less frequently examined but potentially influential dimension of soft governance. Managerial humility involves willingness to review one's own assumptions, recognize the strengths of others, appreciate subordinates' contributions, and remain open to new ideas and feedback. Humble managers implicitly communicate that valuable knowledge may exist at different hierarchical levels and that managerial authority does not imply informational superiority. This orientation can be particularly important in public organizations characterized by formal hierarchy because employees may otherwise hesitate to challenge established assumptions or offer new ideas. An open managerial stance can reduce status barriers and legitimize upward knowledge flows. The increasing attention given to adaptive and transformative leadership competencies reflects the broader recognition that leaders must be capable of learning, listening, and adjusting their behavior rather than relying exclusively on fixed hierarchical authority [1, 2].

These soft governance dimensions have become particularly relevant in the context of organizational digitalization. Digital transformation has altered not only technology but also work processes, communication patterns, organizational structures, and leadership expectations. Leadership research in higher education and other sectors shows that digital transformation requires leaders to develop new combinations of technical, strategic, interpersonal, and change-management competencies [13, 14]. The concept of digital leadership has emerged partly in response to these requirements, emphasizing the role of leaders in enabling people and organizations to operate effectively under conditions of technological change. Systematic reviews have nevertheless indicated that the field

remains conceptually fragmented and that leadership outcomes depend heavily on contextual and organizational variables [10, 15]. These observations suggest the importance of examining broader governance mechanisms beyond purely digital leadership capabilities.

Research in higher education provides additional evidence of the relationship between leadership, transformation, engagement, and organizational outcomes. Carvalho et al. found that leadership plays a significant moderating role in the relationship between digital transformation and the performance of public higher education institutions [16]. Gutu et al., using PLS-SEM, examined academic leadership and learning engagement within the digitalization of higher education and demonstrated the importance of leadership-related factors in understanding organizational responses to digital change [17]. Mehmood similarly examined digital leadership, technology integration, and teacher task performance, emphasizing the interconnected roles of leadership and organizational processes in shaping employee outcomes [18]. Although these studies were conducted in educational contexts, they reinforce a broader principle relevant to public administration: managerial influence is often transmitted through organizational climates, employee engagement, learning mechanisms, and enabling structures rather than through direct authority alone.

The notion of organizational maturity also provides a useful perspective for understanding soft governance. Digital maturity models emphasize that successful organizational transformation involves coordinated development across multiple domains, such as strategy, culture, processes, technology, human capabilities, and leadership [19]. This multidimensional understanding parallels the soft governance framework because effective governance cannot be reduced to a single managerial characteristic. Rather, it emerges from an interconnected system of support, justice, trust, participation, communication, learning, ethical conduct, and humility. Consequently, examining these components simultaneously may provide a more comprehensive understanding of the managerial conditions that promote knowledge sharing than examining isolated leadership behaviors.

Organizational adaptability also requires organizations to reconsider obsolete routines and assumptions. Research on organizational unlearning indicates that sustainable digital innovation is facilitated when organizations can abandon outdated knowledge structures and increase strategic flexibility [20]. Such processes require employees to

exchange information about failures, outdated practices, and alternative approaches. Knowledge sharing therefore includes not only dissemination of established expertise but also critical discussion of what should be changed or discontinued. A soft governance environment characterized by trust, openness, support, and participation is likely to make such exchanges easier because employees are less likely to fear negative consequences from questioning existing practices.

At the same time, leadership behavior should be examined in relation to employees' actual work performance and organizational outcomes. Recent evidence from the education sector shows that digital leadership can affect employee performance both directly and indirectly through transformation processes [7]. Other research has emphasized that the effectiveness of leadership behaviors in digital transformation depends on the organizational circumstances under which they are enacted [3]. This contingency perspective is particularly relevant for government organizations, where formal regulations, bureaucratic structures, organizational culture, and resource constraints may influence the effectiveness of managerial practices. Thus, identifying the soft governance mechanisms that are most strongly associated with knowledge sharing can provide a context-sensitive understanding of how public managers can mobilize employee knowledge.

Furthermore, public organizations face a distinctive knowledge-management challenge because their employees often accumulate substantial procedural, technical, administrative, and experiential knowledge over long periods of service. Much of this knowledge may remain tacit and embedded in individual work routines. If organizational governance fails to create effective mechanisms for interpersonal exchange, retirement, transfer, turnover, or organizational restructuring may result in significant knowledge loss. Leadership and governance mechanisms that foster communication, trust, organizational learning, and participation are therefore essential for institutionalizing individual knowledge. Research emphasizing digital competence among organizational leaders also suggests that contemporary managerial effectiveness increasingly depends on the ability to connect people, information, technologies, and organizational processes [4, 14]. From this perspective, knowledge sharing is a critical manifestation of successful governance because it indicates that information and expertise are circulating across organizational boundaries rather than remaining isolated.

Despite the growing literature on leadership, digital transformation, organizational learning, and performance, several research gaps remain. A substantial proportion of recent research has focused on digital leadership, higher education, technology integration, or private-sector transformation [13, 15]. Other studies have concentrated on digital leadership competencies and transformation capabilities without explicitly integrating the relational dimensions of governance that may influence knowledge-sharing behavior [1, 2]. Likewise, evidence regarding digital leadership and organizational resilience, learning, and performance has expanded [5, 12], yet less attention has been paid to a multidimensional soft governance framework that simultaneously incorporates perceived support, organizational justice, trust, participation, ethical leadership, communication, organizational learning, and humility.

This gap is particularly important in government organizations, where bureaucratic structures can both facilitate and constrain knowledge exchange. Formal procedures may ensure consistency, but excessive hierarchy can limit employee voice, discourage horizontal interaction, and increase dependence on formal communication channels. Soft governance may complement formal administrative structures by strengthening relational conditions that make knowledge exchange possible within those structures. The literature on transformation and leadership consistently demonstrates that organizational performance depends not only on formal systems but also on leadership behavior, employee engagement, culture, flexibility, and learning [6, 16]. Therefore, testing soft governance as an integrated antecedent of knowledge sharing can extend current leadership and governance research while addressing an important practical challenge in public organizations.

The use of structural equation modeling is particularly appropriate for this purpose because soft governance is a multidimensional latent construct composed of several interrelated dimensions, each of which can contribute directly or indirectly to knowledge sharing. PLS-SEM has increasingly been employed in studies of leadership, organizational transformation, and engagement because it allows researchers to evaluate complex measurement and structural relationships simultaneously [17]. By estimating the relative contribution of dimensions such as perceived support, organizational justice, trust, participation, communication, organizational learning, ethical leadership, and humility, a structural model can provide a more nuanced explanation of how soft governance operates in

organizational settings. Such an approach also makes it possible to identify which governance dimensions have the strongest associations with knowledge-sharing processes and thus offer more targeted implications for public-sector management.

Accordingly, the present study aimed to examine the effect of managers' soft governance and its dimensions on employees' knowledge sharing in government organizations of Guilan Province using a structural equation modeling approach.

2. Methodology

In terms of purpose, the present study was applied research, and in terms of the nature of the data, it was a quantitative descriptive-survey study designed to examine the effects of the dimensions of soft governance on knowledge sharing in government organizations of Guilan Province. The statistical population consisted of employees of government organizations. Based on Cochran's formula for finite populations, the final sample size was determined as 382 participants. Convenience non-probability sampling was employed for data collection, and a researcher-

developed questionnaire—derived from the findings of the qualitative phase—was used as the research instrument. The questionnaire was designed using a five-point Likert scale. To ensure the quality of the instrument, the content validity of the questionnaire was first assessed and confirmed based on the opinions of professors and experts in the field of management. Subsequently, its reliability was assessed using Cronbach's alpha coefficient, with values exceeding 0.70 for all constructs. The collected data were analyzed at both descriptive and inferential levels. At the descriptive level, the demographic characteristics of the sample were described using frequency, percentage, mean, and standard deviation in SPSS. At the inferential level, partial least squares structural equation modeling (PLS-SEM) was conducted using SmartPLS.

3. Findings and Results

Prior to hypothesis testing, the demographic characteristics of the respondents were examined. The descriptive characteristics of the sample are summarized in Table 1.

Table 1. Demographic Characteristics of the Sample

Gender	Frequency	Percentage	Age	Frequency	Percentage	Education	Frequency	Percentage	Work Experience	Frequency	Percentage
Female	128	33.50	Under 30 years	45	11.78	Diploma and Associate Degree	8	2.09	Less than 10 years	54	14.13
Male	245	64.13	30–40 years	176	46.07	Bachelor's Degree	183	47.90	10–20 years	191	50.00
No response	9	2.35	41–50 years	107	28.01	Master's Degree	177	46.33	21–30 years	125	32.72
Total	382	100.00	Over 50 years	45	11.78	Doctoral Degree	5	1.30	More than 30 years	3	0.78
			No response	9	2.35	No response	9	2.35	No response	9	2.35
			Total	382	100.00	Total	382	100.00	Total	382	100.00

As shown in Table 1, the majority of respondents were male, accounting for 64.13% of the sample. With respect to educational attainment, the sample distribution indicated a substantial representation of participants with bachelor's degrees. Moreover, because a large proportion of the sample had between 10 and 20 years of work experience, the responses can be considered credible from the perspective of occupational experience.

To explain the relationships among the variables, the normality of the variables was first assessed using the Kolmogorov-Smirnov test. In this test, if the significance level obtained from the test is greater than the error level of 0.05, the data are considered normally distributed. As shown in Table 2, the significance levels for all research variables were greater than 0.05, indicating that the data collected for the research variables followed a normal distribution.

Table 2. Normality Test for the Study Variables

Variable	Test Statistic	p	Result	Variable	Test Statistic	p	Result
Perceived Support	0.087	0.123	Normal	Ethical Leadership	0.302	0.081	Normal
Organizational Justice	0.183	0.341	Normal	Communication	0.125	0.153	Normal
Trust	0.193	0.214	Normal	Organizational Learning	0.328	0.330	Normal
Participation	0.053	0.566	Normal	Humility	0.291	0.288	Normal

Moreover, because all data were collected using a single questionnaire, Harman's single-factor test was performed to ensure the absence of common method bias (CMB), which could potentially compromise the validity of the findings. According to the results, the variance explained by the first factor was 25%. Because this value was below the 50% threshold generally considered indicative of common method bias, it was concluded that common method bias was not a serious concern in the study data and that the results of the subsequent analyses were not substantially affected by methodological bias. Before testing the hypotheses and

evaluating the structural model, the measurement model was assessed.

The evaluation was subsequently conducted in two stages, including the assessment of reliability and convergent validity, followed by the assessment of discriminant validity. Composite reliability (CR) was used to assess construct reliability, whereas average variance extracted (AVE) was used to evaluate convergent validity. According to commonly accepted research standards, CR values should exceed 0.70 and AVE values should exceed 0.50. The results of this evaluation are presented in Table 3.

Table 3. Results of Construct Reliability and Convergent Validity

Component	Indicator	Factor Loading	t Value	Composite Reliability (CR)	Cronbach's Alpha	AVE	R ²	AVE	Composite Reliability (CR)
Perceived Support	Commitment	0.827	26.347	0.880	0.841	0.678	0.756	0.848	0.957
	Planning	0.825	31.453	0.941	0.930	0.643	0.867		
	Actions	0.867	39.594	0.823	0.870	0.538	0.775		
	Evaluation	0.851	25.741	0.815	0.798	0.593	0.831		
Trust	Integrity	0.621	14.524	0.725	0.844	0.645	0.743	0.851	0.866
	Competence	0.625	15.541	0.766	0.742	0.688	0.632		
	Consistency	0.682	16.125	0.731	0.821	0.747	0.719		
	Openness	0.634	15.618	0.749	0.769	0.826	0.836		
Participation	Consultation	0.469	19.863	0.776	0.792	0.632	0.715	0.784	0.840
	Joint Decision-Making	0.539	25.780	0.717	0.875	0.713	0.785		
	Self-Management	0.705	17.878	0.854	0.878	0.775	0.676		
	Acceptance of Responsibility	0.717	28.687	0.812	0.829	0.676	0.795		
Communication	Timely Information	0.509	18.998	0.727	0.787	0.702	0.841	0.792	0.892
	Accurate Information	0.766	24.354	0.851	0.864	0.789	0.769		
	Complete Information	0.674	23.342	0.811	0.895	0.816	0.887		
	Feedback	0.548	11.743	0.808	0.781	0.695	0.733		
Ethical Leadership	People Orientation	0.557	25.313	0.786	0.835	0.573	0.749	0.773	0.921
	Fairness	0.786	21.031	0.807	0.885	0.649	0.833		
	Power Sharing	0.584	17.518	0.736	0.758	0.729	0.723		
	Concern for Sustainability	0.519	19.253	0.745	0.867	0.626	0.809		
Organizational Justice	Ethical Guidance	0.629	29.863	0.824	0.883	0.619	0.687		
	Role Clarification	0.758	22.712	0.763	0.788	0.734	0.690		
	Procedural Justice	0.653	12.519	0.802	0.866	0.609	0.624	0.806	0.874
	Distributive Justice	0.513	23.417	0.743	0.826	0.725	0.712		
Organizational Learning	Interactional Justice	0.716	17.552	0.784	0.805	0.547	0.876		
	Clarification of Mission and Goals	0.671	11.251	0.891	0.943	0.772	0.684	0.811	0.898
	Delegation of Authority	0.425	9.814	0.872	0.906	0.564	0.702		
	Knowledge Transfer	0.599	6.616	0.833	0.889	0.583	0.859		

	Teamwork and Group Problem-Solving	0.728	18.896	0.905	0.913	0.667	0.788		
Humility	Willingness to Self-Review	0.782	31.652	0.893	0.902	0.672	0.781	0.802	0.879
	Appreciation of Others' Strengths	0.806	20.716	0.852	0.918	0.757	0.863		
	Appreciation of Subordinates' Contributions	0.749	18.632	0.908	0.876	0.796	0.844		
	Openness to New Ideas and Feedback	0.753	27.616	0.813	0.948	0.833	0.697		

According to the results presented in Table 3, all CR and AVE values exceeded the specified thresholds of 0.70 and 0.50, respectively. In addition, the factor loadings of the indicators were generally at acceptable levels, indicating that the constructs were adequately represented by their respective indicators and supporting the convergent validity of the measurement model.

To ensure that each construct was empirically distinct from the other constructs, discriminant validity was assessed using the Fornell-Larcker criterion. According to this criterion, the square root of the AVE for each construct should be greater than its correlations with the other constructs. The results of this assessment are presented in Table 4.

Table 4. Discriminant Validity Matrix Based on the Fornell-Larcker Criterion

Construct	Perceived Support	Organizational Justice	Organizational Trust	Employee Participation	Organizational Learning	Communication	Ethical Leadership	Humility	Knowledge Sharing
Perceived Support	0.921								
Organizational Justice	0.853	0.898							
Organizational Trust	0.787	0.825	0.922						
Participation	0.760	0.779	0.816	0.885					
Organizational Learning	0.757	0.764	0.775	0.791	0.900				
Communication	0.749	0.750	0.758	0.766	0.773	0.890			
Ethical Leadership	0.735	0.741	0.743	0.755	0.760	0.772	0.888		
Humility	0.729	0.731	0.739	0.747	0.756	0.761	0.779	0.896	
Knowledge Sharing	0.716	0.725	0.734	0.738	0.746	0.759	0.767	0.783	0.861

As shown in Table 4, the square-root AVE values were greater than the corresponding inter-construct correlations. This finding confirms that each construct was conceptually and statistically distinct from the other constructs in the model and therefore supports the discriminant validity of the measurement model.

Following confirmation of the measurement model, the structural model was evaluated to examine the relationships

among the constructs and test the research hypotheses. At this stage, the explanatory power of the model (R^2) was first assessed, followed by estimation of the significance of the structural paths. The results indicated that the proposed model explained 77% of the variance in knowledge sharing, demonstrating high explanatory power (Table 5).

Table 5. Results for the Explanatory Power of the Model (R^2)

Dependent Variable	R^2	Explanatory Power
Knowledge Sharing	0.773	High

In the next step, path coefficients (β) and t statistics were extracted to evaluate the significance of the relationships

between the dimensions of soft governance and knowledge sharing. According to conventional statistical criteria, t

values greater than 1.96 at the 95% confidence level indicate a statistically significant relationship and support for the

corresponding hypothesis. The results of the hypothesis tests are presented in Table 6.

Table 6. Summary of Hypothesis Testing Results (Effect Paths)

Path	Direct Effect	Indirect Effect	Total Effect	Rank
Soft Governance → Knowledge Sharing	0.857	—	0.857	1
Perceived Support → Soft Governance → Knowledge Sharing	—	0.741	0.741	2
Organizational Justice → Soft Governance → Knowledge Sharing	—	0.632	0.632	3
Trust → Soft Governance → Knowledge Sharing	—	0.551	0.551	5
Participation → Soft Governance → Knowledge Sharing	—	0.613	0.613	4
Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.471	0.471	7
Communication → Soft Governance → Knowledge Sharing	—	0.422	0.422	9
Organizational Learning → Soft Governance → Knowledge Sharing	—	0.529	0.529	6
Humility → Soft Governance → Knowledge Sharing	—	0.463	0.463	8
Commitment → Perceived Support → Soft Governance → Knowledge Sharing	—	0.252	0.252	12
Planning → Perceived Support → Soft Governance → Knowledge Sharing	—	0.118	0.118	25
Actions → Perceived Support → Soft Governance → Knowledge Sharing	—	0.173	0.173	17
Evaluation → Perceived Support → Soft Governance → Knowledge Sharing	—	0.098	0.098	29
Procedural Justice → Organizational Justice → Soft Governance → Knowledge Sharing	—	0.187	0.187	16
Distributive Justice → Organizational Justice → Soft Governance → Knowledge Sharing	—	0.204	0.204	15
Interactional Justice → Organizational Justice → Soft Governance → Knowledge Sharing	—	0.213	0.213	14
Integrity → Trust → Soft Governance → Knowledge Sharing	—	0.218	0.218	13
Competence → Trust → Soft Governance → Knowledge Sharing	—	0.170	0.170	18
Consistency → Trust → Soft Governance → Knowledge Sharing	—	0.081	0.081	34
Openness → Trust → Soft Governance → Knowledge Sharing	—	0.076	0.076	35
Consultation → Participation → Soft Governance → Knowledge Sharing	—	0.091	0.091	30
Joint Decision-Making → Participation → Soft Governance → Knowledge Sharing	—	0.084	0.084	33
Self-Management → Participation → Soft Governance → Knowledge Sharing	—	0.103	0.103	28
Acceptance of Responsibility → Participation → Soft Governance → Knowledge Sharing	—	0.071	0.071	37
People Orientation → Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.131	0.131	23
Fairness → Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.111	0.111	26
Power Sharing → Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.074	0.074	36
Concern for Sustainability → Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.069	0.069	38
Ethical Guidance → Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.161	0.161	20
Role Clarification → Ethical Leadership → Soft Governance → Knowledge Sharing	—	0.105	0.105	27
Timely Information → Communication → Soft Governance → Knowledge Sharing	—	0.086	0.086	32
Accurate Information → Communication → Soft Governance → Knowledge Sharing	—	0.065	0.065	39
Complete Information → Communication → Soft Governance → Knowledge Sharing	—	0.144	0.144	21
Feedback → Communication → Soft Governance → Knowledge Sharing	—	0.061	0.061	41
Clarification of Mission and Goals → Organizational Learning → Soft Governance → Knowledge Sharing	—	0.135	0.135	22
Delegation of Authority → Organizational Learning → Soft Governance → Knowledge Sharing	—	0.163	0.163	19
Knowledge Transfer → Organizational Learning → Soft Governance → Knowledge Sharing	—	0.264	0.264	10
Teamwork and Group Problem-Solving → Organizational Learning → Soft Governance → Knowledge Sharing	—	0.258	0.258	11
Willingness to Self-Review → Humility → Soft Governance → Knowledge Sharing	—	0.063	0.063	40
Appreciation of Others' Strengths → Humility → Soft Governance → Knowledge Sharing	—	0.057	0.057	42
Appreciation of Subordinates' Contributions → Humility → Soft Governance → Knowledge Sharing	—	0.122	0.122	24
Openness to New Ideas and Feedback → Humility → Soft Governance → Knowledge Sharing	—	0.088	0.088	31

According to the results presented in Table 6, the analyses showed that soft governance directly affected knowledge sharing with an effect coefficient of 0.857. The indirect effects of the dimensions and components of soft governance on knowledge sharing were also examined. The results

showed that, among the dimensions of soft governance, perceived support had the strongest effect on knowledge sharing, with a coefficient of 0.741. Path analysis for the remaining dimensions indicated that organizational justice (0.632), participation (0.613), trust (0.551), organizational

learning (0.529), ethical leadership (0.471), humility (0.463), and communication (0.422) ranked subsequently in terms of their effects on knowledge sharing.

The indirect effects of each indicator were also analyzed. The results indicated that, among the indicators of perceived support, commitment had the strongest effect (0.252); among the indicators of organizational justice, interactional justice had the strongest effect (0.213); among the indicators of trust, integrity had the strongest effect (0.218); among the indicators of participation, self-management had the strongest effect (0.103); among the indicators of ethical leadership, ethical guidance had the strongest effect (0.161); among the indicators of communication, complete information had the strongest effect (0.144); among the indicators of organizational learning, knowledge transfer had the strongest effect (0.264); and among the indicators of humility, appreciation of subordinates' contributions had the strongest effect (0.122).

4. Discussion and Conclusion

The present study examined the effect of managers' soft governance on employees' knowledge sharing in government organizations of Guilan Province using structural equation modeling. The findings demonstrated that soft governance exerted a strong direct effect on knowledge sharing, with a path coefficient of 0.857. In addition, the structural model explained 77.3% of the variance in knowledge sharing, indicating substantial explanatory power. Among the dimensions of soft governance, perceived support showed the strongest effect on knowledge sharing (0.741), followed by organizational justice (0.632), participation (0.613), trust (0.551), organizational learning (0.529), ethical leadership (0.471), humility (0.463), and communication (0.422). At the indicator level, commitment was the strongest component of perceived support, interactional justice was the strongest component of organizational justice, integrity was the strongest indicator of trust, self-management was the strongest indicator of participation, ethical guidance was the strongest indicator of ethical leadership, complete information was the strongest communication indicator, knowledge transfer was the strongest organizational-learning indicator, and appreciation of subordinates' contributions was the strongest indicator of humility. These findings collectively show that knowledge sharing in government organizations is strongly shaped by a broad network of managerial, relational, ethical, and learning-

oriented mechanisms rather than by formal administrative structures alone.

The strong direct effect of soft governance on knowledge sharing suggests that employees are more inclined to exchange information, experiences, expertise, and work-related knowledge when managers create a supportive, fair, participatory, trustworthy, learning-oriented, and ethically grounded work environment. Knowledge sharing is generally not a fully enforceable behavior because employees retain considerable discretion over whether, how, and to what extent they communicate their tacit and experiential knowledge. Accordingly, managerial influence becomes particularly important in shaping the psychological and organizational conditions under which employees are willing to share what they know. This result is consistent with recent leadership research emphasizing that contemporary leadership effectiveness increasingly depends on relational, adaptive, communicative, and employee-oriented competencies rather than reliance solely on hierarchical control [1, 2]. It is also aligned with evidence indicating that leadership behaviors can improve organizational performance by facilitating employee engagement, organizational learning, technological adaptation, and collective capability development [3, 7].

The high explanatory power of the model further indicates that soft governance constitutes an important organizational mechanism for understanding knowledge-sharing behavior. An R^2 value of 0.773 means that a substantial proportion of the variance in knowledge sharing can be accounted for by the governance framework examined in this study. This finding supports the argument that knowledge sharing is embedded in broader organizational conditions and cannot be treated merely as an individual communication behavior. Similar reasoning can be observed in studies of digital transformation, where leadership effects are often transmitted through organizational capabilities, learning systems, employee engagement, and transformation processes rather than through a single direct managerial action [5, 12]. Research on higher education has likewise shown that leadership can substantially shape institutional performance and employee behavior through organizational processes that facilitate adaptation and change [16, 17]. Therefore, the present findings extend this logic to public-sector knowledge management by demonstrating that the quality of managerial governance can explain a large share of employees' willingness to participate in knowledge exchange.

Among all dimensions, perceived support had the strongest relationship with knowledge sharing. This finding implies that employees are especially likely to share knowledge when they believe that managers recognize their contributions, support their professional efforts, plan effectively, undertake supportive actions, and evaluate performance fairly. Perceived support may foster reciprocal behavior; employees who experience organizational care and managerial recognition may feel a stronger obligation to contribute their expertise to collective goals. The strong role of commitment within this dimension further suggests that employees respond positively when supportive governance is linked with sustained managerial commitment rather than occasional symbolic actions. This result is consistent with leadership research showing that effective contemporary leaders facilitate employee performance by creating enabling conditions, reducing uncertainty, and supporting employees through organizational change [4, 7]. It also corresponds with the broader view that leadership competencies should include the ability to mobilize human resources, build relational capacity, and align employee efforts with organizational objectives [1].

Organizational justice emerged as the second strongest soft governance dimension. The significance of this result can be explained by the reciprocal nature of knowledge sharing. Employees invest time, expertise, and intellectual resources when sharing knowledge, and their willingness to do so is likely to depend on whether they perceive organizational procedures, outcomes, and interpersonal treatment as fair. When employees believe that decisions are made fairly, rewards and responsibilities are allocated appropriately, and interactions are respectful, they are more likely to cooperate voluntarily. The finding that interactional justice had the strongest effect among the justice indicators is particularly noteworthy because knowledge sharing is fundamentally interpersonal. Respectful treatment, transparent explanations, and appropriate communication can strengthen relational security and encourage employees to exchange expertise openly. This finding is consistent with leadership perspectives emphasizing that organizational transformation depends on the human and social quality of managerial interactions as much as on formal strategic or technological capabilities [1, 8]. It also complements evidence showing that leadership and organizational culture jointly influence broader organizational outcomes [6].

Participation also had a substantial effect on knowledge sharing. This result indicates that consultation, shared decision-making, self-management, and acceptance of

responsibility create opportunities and incentives for employees to contribute knowledge. Participation increases employees' psychological involvement in organizational processes and creates situations in which their expertise becomes relevant to collective decisions. When employees are included in decision-making, they are more likely to perceive their knowledge as valuable and consequential, which can increase their motivation to communicate ideas and experiences. The relatively stronger role of self-management suggests that autonomy may be particularly important because employees who are trusted to manage their work are more likely to take responsibility for solving problems and exchanging knowledge proactively. This interpretation is consistent with research showing that visionary and inclusive leadership can stimulate proactive employee behavior and encourage followers to take initiative when they feel connected to leadership and future organizational goals [9]. It also aligns with digital leadership studies in which empowerment and employee involvement are viewed as important conditions for adaptive organizational performance [3].

Trust was another important predictor of knowledge sharing. Knowledge exchange requires employees to expose professional judgments, disclose experience, and sometimes reveal uncertainty or incomplete ideas. Such behaviors involve interpersonal risk and are therefore more likely when employees trust managers and colleagues. The present finding that integrity was the strongest indicator within the trust dimension suggests that employees pay particular attention to honesty, ethical consistency, and reliability when deciding whether to make their knowledge accessible to others. If employees believe that their contributions will be used fairly and responsibly, the perceived risk associated with sharing knowledge decreases. This interpretation corresponds with the growing emphasis on leader competence as a multidimensional construct that includes not only technical skills but also behavioral credibility, communication ability, and the capacity to navigate complex work relationships [2, 4]. Trust can therefore be considered a central relational mechanism through which soft governance facilitates voluntary knowledge exchange.

Organizational learning also made a notable contribution to knowledge sharing. The finding is theoretically coherent because organizational learning and knowledge sharing are mutually reinforcing processes. Knowledge cannot become an organizational resource unless it moves beyond individuals and is transferred, discussed, interpreted, and incorporated into collective routines. The present results

showed that knowledge transfer and teamwork/group problem-solving were particularly important indicators within the organizational learning dimension. This suggests that government organizations benefit when learning is embedded in collaborative work and when employees have explicit mechanisms for transferring knowledge. Similar findings have been reported in research on digital leadership and sustainable organizational performance, where organizational learning was identified as an important pathway through which leadership contributes to organizational capability [5]. Studies of organizational resilience also indicate that leadership supports adaptation when it strengthens higher-order organizational capabilities and continuous learning processes [12]. The current findings therefore reinforce the proposition that learning-oriented governance can institutionalize knowledge sharing as part of everyday organizational functioning.

Ethical leadership had a positive effect on knowledge sharing, although its effect was smaller than those of perceived support, justice, participation, trust, and organizational learning. This result nonetheless confirms that employees' willingness to exchange knowledge is influenced by the moral quality of managerial behavior. Ethical leaders clarify expectations, demonstrate fairness, share power appropriately, provide ethical guidance, and establish standards of acceptable conduct. These practices can reduce uncertainty and establish a normative climate in which cooperation and knowledge exchange are viewed as legitimate and desirable behaviors. The finding that ethical guidance was the strongest indicator of ethical leadership suggests that employees benefit particularly from explicit managerial direction regarding values and appropriate organizational conduct. This is consistent with contemporary leadership research emphasizing that successful transformation requires leaders who combine strategic competence with values, people-oriented behavior, and relational sensitivity [1, 3]. The findings also correspond with research showing that leadership and organizational culture together can influence sustainable organizational performance [6].

Humility also had a meaningful positive effect on knowledge sharing. This result indicates that managers who are willing to reconsider their own views, recognize others' strengths, appreciate subordinates' contributions, and remain receptive to feedback can create an environment in which employees feel more confident expressing ideas. The strongest indicator within this dimension was appreciation of subordinates' contributions, suggesting that recognition is

a particularly important behavioral signal. When managers explicitly acknowledge employee contributions, they communicate that valuable knowledge is not confined to formal authority positions. This can reduce hierarchical barriers and promote upward and horizontal knowledge flows. Contemporary research on digital and transformative leadership similarly emphasizes adaptability, openness, continuous learning, and responsiveness to employee input as important leadership competencies [2, 14]. Systematic reviews of leadership in digitally changing institutions have also highlighted the need for leaders to move beyond traditional hierarchical models and develop more flexible and participatory orientations [10, 15].

Communication had the smallest effect among the soft governance dimensions, although its effect remained positive and substantial. This does not imply that communication is unimportant; rather, communication may operate as an enabling condition whose effectiveness depends on the quality of other relational dimensions such as trust, justice, and support. The finding that complete information was the strongest communication indicator suggests that employees require sufficiently comprehensive information to integrate their own expertise with organizational needs. Knowledge sharing is more likely to be useful when employees understand the broader context within which their knowledge will be applied. Research on digital leadership demonstrates that communication becomes particularly important in complex and hybrid organizational environments where information must be coordinated across multiple channels and work arrangements [8]. Similarly, studies of technology integration show that leadership influences employee behavior partly through the provision of guidance, information, and organizational support [11, 18]. Thus, communication should be interpreted as part of a broader governance system rather than as an isolated managerial practice.

The overall pattern of findings also corresponds with recent research on digital transformation and organizational maturity. Digital maturity perspectives suggest that effective transformation depends on simultaneous development across leadership, culture, processes, human capabilities, and organizational learning [19]. Likewise, the soft governance model investigated in the present study demonstrates that knowledge sharing is best explained through a configuration of mutually reinforcing dimensions rather than a single managerial characteristic. Perceived support can strengthen trust, justice can legitimize

participation, ethical leadership can improve the quality of communication, and organizational learning can transform exchanged knowledge into institutional capability. These interdependencies help explain why soft governance as an overarching construct exerted a stronger effect than any individual dimension.

The findings are also consistent with research emphasizing the importance of flexibility, learning, and the replacement of obsolete organizational routines in contemporary organizations. Zhao and Yan showed that organizational unlearning and strategic flexibility are important for sustainable innovation in changing environments [20]. Knowledge sharing can support similar processes by allowing employees to identify outdated practices, exchange alternative interpretations, and collectively develop improved work methods. However, employees are unlikely to openly question established routines unless governance conditions provide sufficient trust, support, fairness, and openness. The current findings therefore suggest that soft governance may contribute not only to the circulation of existing knowledge but also to organizational adaptation by creating conditions for critical reflection and renewal.

Taken together, the results support a shift from a purely structural understanding of governance toward a relational and behavioral perspective. In government organizations, formal regulations and administrative procedures remain essential, but they do not automatically ensure the circulation of tacit knowledge, practical expertise, or innovative ideas. The present findings demonstrate that knowledge sharing becomes more likely when managers complement formal governance with support, justice, participation, trust, learning opportunities, ethical conduct, humility, and effective communication. This conclusion is broadly consistent with research demonstrating that leadership plays an important role in organizational transformation, employee performance, institutional effectiveness, and technology integration across different organizational contexts [13, 16, 17]. The study therefore extends the contemporary leadership literature by showing that a multidimensional soft governance framework can provide a powerful explanation of knowledge-sharing behavior in public organizations.

The present study had several limitations that should be considered when interpreting the findings. First, the study employed a cross-sectional design, which limits the ability to establish definitive causal relationships among soft governance and knowledge sharing. Second, all variables

were measured using self-report questionnaires, which may have been affected by respondents' perceptions, social desirability, or temporary psychological states despite the absence of serious common method bias based on Harman's single-factor test. Third, convenience non-probability sampling may limit the representativeness of the sample and restrict generalization beyond the participating organizations. Fourth, the study was conducted only among employees of government organizations in Guilan Province; therefore, organizational, cultural, and administrative characteristics specific to this context may have influenced the findings. Finally, the model focused on selected dimensions of soft governance and did not examine other potentially relevant factors such as psychological safety, organizational culture, knowledge-hiding behavior, technological infrastructure, leadership tenure, or interdepartmental differences.

Future studies are recommended to employ longitudinal or time-lagged research designs to investigate how changes in soft governance practices influence knowledge-sharing behavior over time and to provide stronger evidence regarding causal relationships. Probability sampling and larger samples drawn from several provinces or different categories of public organizations could improve the generalizability of the findings. Comparative studies between public and private organizations may also clarify whether the effects of soft governance differ according to organizational ownership, bureaucracy, competitive pressure, or managerial flexibility. Future researchers could incorporate mediating variables such as psychological safety, organizational identification, employee engagement, or organizational commitment and moderating variables such as organizational culture, digital maturity, job autonomy, or environmental uncertainty. Multigroup structural equation modeling could also be used to determine whether the relationships differ according to gender, age, education, managerial level, or work experience. In addition, combining questionnaire data with interviews, observations, social network analysis, or objective indicators of knowledge exchange could provide a more comprehensive understanding of how soft governance affects actual knowledge-sharing behavior.

Managers of government organizations should treat knowledge sharing as a governance issue rather than merely a technological or knowledge-management function. Particular priority should be given to strengthening perceived support by recognizing employee contributions, demonstrating sustained managerial commitment, providing

resources for professional activities, and ensuring that employees receive meaningful managerial assistance. Fair procedures, equitable resource allocation, and respectful interpersonal treatment should be institutionalized because organizational justice appears to be a major foundation for voluntary knowledge exchange. Managers should also expand participatory decision-making, consultation, self-management, and responsibility-sharing so that employees have genuine opportunities to apply and communicate their expertise. Trust can be strengthened through managerial integrity, consistency, competence, and openness. Organizations should create structured mechanisms for knowledge transfer, teamwork, collaborative problem-solving, mentoring, and cross-unit learning. Ethical guidance should be incorporated into managerial practice, while managers should actively recognize subordinates' contributions and remain receptive to employee feedback and new ideas. Finally, internal communication systems should provide timely, accurate, and sufficiently complete information so that employees can understand organizational priorities and determine where their knowledge can make the greatest contribution.

Authors' Contributions

Authors equally contributed to this article.

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Declaration of Interest

The authors report no conflict of interest.

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All procedures performed in this study were under the ethical standards.

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