

The Role of Internal Control in Improving Human Resource Performance Based on Remote Team Leadership

Tanti Listiyowati¹⁾ & Ibnu Khajar²⁾

¹⁾Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: tantifaid1984@gmail.com

²⁾Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: ibnu@unissula.ac.id

Abstract. *Managing your organization remotely increases the risk of losses. The first disadvantage is that remote work can cause issues such as control measures and lack of communication between stakeholders and the control system. The second challenge is establishing an appropriate schedule for meetings and discussions. Third, it can be difficult to monitor the work of remote teams. Fourth, data protection, security, and confidentiality can be compromised if the company faces challenges and uses sensitive data. Therefore, it is crucial for companies and employers to manage remote work appropriately to address the associated issues. Improved communication and the provision of appropriate information and guidance will help companies maintain performance and ensure that their internal control systems are functioning properly. This study uses an explanatory survey, which aims to test hypotheses in order to obtain empirical support for the validity or falsification of these hypotheses. The explanatory survey method was chosen because it is able to explain causal relationships, both causal and reciprocal, and assess the influence of independent variables on dependent variables. This study provides empirical evidence of the positive and significant influence of remote team leadership and internal control on improving HR performance. The moderating effect of internal control on this relationship was not statistically significant. The measurement model demonstrated good psychometric properties, and the structural model had adequate explanatory and predictive power.*

Keywords: *Control; Improving; Internal; Leadership.*

1. Introduction

Human resource performance is the results and achievements achieved in the workplace. Performance refers to sticking to plans while aiming for financial or non-financial outcomes. Employees are the key to organizational success.(Claudia and Hadiani 2024).

The Covid-19 pandemic has led to changes in the work environment, forcing most institutions, organizations, and non-production organizations to shift to remote work. In the literature, remote work is defined as a type of work in which workers and managers communicate

remotely via email, fax, or the internet to perform and receive technical tasks, deliverables, work, and payments.(Chychun et al. 2023).

A leader who leads employees remotely to achieve organizational goals can be called a virtual leader. This leader utilizes modern technology to establish new communication models with their followers to increase work effectiveness. Traditional face-to-face interactions have been replaced by electronic media. Leadership conducted through electronic media or the internet is known as e-leadership. This concept, which also refers to remote team leadership, has evolved as a replacement for traditional leadership along with technological advances.(Permana et al. 2023). Regarding virtual teams, although “pure” virtual teams (i.e., team members never meet) are rare, they are also mentioned if they are “hybrid” in nature, that is: (a) team members work virtually but meet in person periodically; (b) some members work remotely and others work in one location; or (c) some members work in different local locations(Pianese, Errichiello, and da Cunha 2023).

Managing your organization remotely increases the risk of losses. The first disadvantage is that remote work can cause issues such as control measures and lack of communication between stakeholders and the control system. The second challenge is establishing an appropriate schedule for meetings and discussions. Third, it can be difficult to monitor the work of remote teams. Fourth, data protection, security, and confidentiality can be compromised if the company faces challenges and uses sensitive data. Therefore, it is crucial for companies and employers to manage remote work appropriately to address the associated issues. Improved communication and the provision of appropriate information and guidance will help companies maintain performance and ensure that their internal control systems are functioning properly.(Mamand and Alagoz 2021a).

A limited number of studies have investigated control issues for mobile workers, those who perform activities primarily outside of a traditional office (e.g., salespeople), and flexible workers, those who have space and time constraints. Recognizing the differing perspectives, each control domain is discussed by contrasting findings for remote workers (including home-based teleworkers and mobile workers) and virtual teams.(Pianese et al. 2023).

Study(Mamand and Alagoz 2021b)stated that there is a significant relationship between internal control and HR performance. This establishes the basis for the hypothesis of a direct effect, indicating its role as a determinant of performance. On the other hand, in the context of remote work, the complexity of supervision and communication (Pianese et al., 2023) suggests that leadership effectiveness is highly dependent on the existing control system. Therefore, this study will examine the dual role of internal control, both as a variable that directly influences HR performance and as a variable that moderates the influence of remote team leadership in this study.

Remote team leadership is implemented by leaders at PT and CV Tripio Purwokerto, thus creating a gap phenomenon that underlies this research. PT and CV Tripio Purwokerto are local companies that have grown rapidly in recent years, growing into wholesale companies

and having branches in several cities. Based on company data, employee performance over the past three years has been quite good, but achievement of performance targets has been less than 90%.

2. Research Methods

This study uses an explanatory survey, which aims to test hypotheses in order to obtain empirical support for the validity or falsification of these hypotheses. The explanatory survey method was chosen because it is able to explain causal relationships, both causal and reciprocal, and assess the influence of independent variables on dependent variables. This explanatory research design also aims to provide an explanation regarding the generalizability of the sample to the population, as well as to describe the relationships, differences, or influences between variables in the context of hypothesis testing.(Assayakurrohim et al. 2023).

3. Results and Discussion

This study aims to investigate the relationship between remote team leadership (KTJJ), internal control (PIN), and the interaction between the two, on human resource performance (KIN) using the Structural Equation Modeling - Partial Least Squares (SEM-PLS) approach. A deep understanding of these dynamics is becoming increasingly crucial, especially in the context of contemporary work environments that widely adopt remote work models.

This demographic profile may be particularly relevant to research using latent variables such as "Remote Team Leadership," "People Performance," and "Internal Control." Younger respondents with relatively recent work experience may have unique perspectives on the effectiveness of remote leadership (particularly as a team member) or on factors influencing their performance early in their careers. The presence of respondents from managerial levels, although a minority, allows for a leadership perspective. Internal control issues are also relevant across all levels and types of companies represented. Thus, this sample profile appears to be quite relevant for studying contemporary work dynamics, particularly among young professionals and those in the early to mid-career stages, across a variety of functions and types of organizations.

AVE measures the average amount of variance explained by a construct in its indicators relative to the overall variance of those indicators. An AVE value greater than 0.50 is considered adequate. The AVE values for each construct are as follows:

- 1) Remote Team Leadership (KTJJ): AVE = 0.666
- 2) Human Resource Performance (KIN): AVE = 0.739
- 3) Internal Control (PIN): AVE = 0.620

All AVE values exceeded the threshold of 0.50. This indicates that each latent construct was able to explain more than half of the variance in its indicators. For example, the KTJJ construct

explained 66.6% of the variance in its indicators, KIN explained 73.9%, and PIN explained 62.0%. The high AVE values, especially for HR Performance, provide strong confidence that these indicators effectively measure the intended constructs.

Based on the analysis of outer loadings, AVE, Cronbach's Alpha, composite reliability, Fornell-Larcker criteria, cross-loadings, and HTMT, the measurement model demonstrated adequate and strong convergent validity, internal consistency reliability, and discriminant validity. This indicates that the measurement instrument used is valid and reliable, so that the evaluation of the structural model can proceed with confidence.

After the measurement model is declared valid and reliable, the next step is to evaluate the structural model. When the measurement model assessment is satisfactory, the next step in evaluating the PLS-SEM results is the structural model. Standard assessment criteria, which should be considered, include the coefficient of determination (R^2), blindfolding-based cross-validation redundancy measure Q^2 , as well as the statistical significance and relevance of the coefficient paths.(Hair et al. 2019).

Hypothesis testing aims to examine the relationships between previously formulated constructs by evaluating the significance and magnitude of path coefficients in the structural model. A bootstrapping procedure is used to generate t-statistics and p-values, which serve as the basis for making hypothesis decisions. Generally, a p-value < 0.05 (or t-statistic > 1.96 for a two-tailed test at the 5% significance level) indicates a statistically significant relationship. The primary data for hypothesis testing comes from path coefficient reports.(Hair et al. 2019).

Table Hypothesis Testing Table

Hypothesis	path coefficient	T statistics (O/STDEV)	P values	Significance
Remote Team Leadership -> HR Performance	0.289	1,884	0.06	Significant with a 10% confidence interval
Internal Control -> HR Performance	0.393	2,575	0.01	Significant
Internal Control x Remote Team Leadership -> HR Performance	-0.078	1,262	0.207	Not Significant

The results of the path coefficient analysis, t-statistics, and p-values for each hypothesis are as follows:

H1: Remote Team Leadership (KTJJ) has a positive effect on HR Performance (KIN)

1) Path Coefficient (Original Sample O): 0.289

2) Statistic t: 1.884

3) *p-value*: 0.06

4) Decision: Significant ($p < 0.1$). Hypothesis 1 is accepted at the 90% confidence level. The path coefficient indicates a positive relationship (0.289), with the *p-value* (0.06) being less than 0.1. This means there is sufficient statistical evidence to state that remote team leadership has a positive and significant influence on HR performance in the context of this variable research with a significance level of 10%.

H2: Internal Control (ICC) has a positive effect on HR Performance (HRD)

1) Path Coefficient (Original Sample O): 0.393

2) Statistic *t*: 2.575

3) *p-value*: 0.01

4) Decision: Significant ($p < 0.05$). Hypothesis 2 is accepted. The path coefficient indicates a positive relationship (0.393), the *p-value* (0.01) is less than 0.05. This means statistical evidence to state that internal control has a positive and significant influence on HR performance.

H3: Internal Control (ICC) moderates the influence of Remote Team Leadership (KTJJ) on Human Resource Performance (KIN)

1) Path Coefficient (O) for Interaction (PIN x KTJJ → KIN): -0.078

2) Statistic *t*: 1.262

3) *p-value*: 0.207

4) Decision: Not Significant ($p > 0.05$). Hypothesis 3 is rejected. The path coefficient for the interaction effect (-0.078) is not statistically significant (*p-value* = 0.207). This indicates that internal control does not significantly moderate (fails to strengthen or weaken) the relationship between remote team leadership and HR performance. In other words, the strength or direction of the relationship between remote team leadership and HR performance does not depend significantly on the level of internal control in this sample.

The main finding is the dominant positive and significant influence of remote team leadership and internal control on HR performance. The better the remote team leadership and internal control, the higher the HR performance. Conversely, the moderating effect of internal control on this relationship was not evident. The absence of a moderating effect suggests that HR performance improvement strategies may be more effective if they focus on strengthening internal control in general.

Evaluation of the measurement model showed that all constructs (Remote Team Leadership, Internal Control, and HR Performance) had good convergent validity, internal consistency

reliability, and discriminant validity. The model also demonstrated high predictive relevance ($Q^2=0.265$).

The results of this study indicate that Remote Team Leadership (DTJJ) has a statistically significant influence on Human Resource Performance (HR Performance) ($\beta=0.289$, $p=0.06$). Although the confidence interval is only 90%, the results can be concluded as significant with a positive path coefficient.

A large body of literature shows the significant positive impact of remote leadership. Research(Wulandari, Han, and Sugiono 2025)demonstrates the important interaction between virtual leadership and collaboration tools in boosting remote team productivity in the software industry. The findings of this study reveal that effective virtual leadership practices, combined with the right collaboration tools, create a synergistic effect that significantly improves remote team performance. research(Salim et al. nd) revealed a significant positive relationship between successful adaptation to remote work and increased productivity, job satisfaction, and employee retention. Leadership styles, particularly transformational and participatory approaches, have been shown to significantly improve employee engagement and performance. Effective diversity management practices have been shown to contribute to a more inclusive workplace, foster innovation, and foster competitive advantage.(Salim et al. nd).

A recent meta-analysis (Brown et al., 2021) examined the relationship between task-oriented and relational leadership styles and performance in virtual team contexts. The results revealed a positive correlation for both leadership styles. Furthermore, this relationship was moderated by task interdependence, team size, team type, and the methodological approach to measuring team performance (i.e., self-report vs. non-self-report), as cited in the study.(Hödding haus, Nohe, and Hertel 2024).

Effective virtual leadership styles, such as participative, transformational, situational, and servant leadership, can enable teams to collaborate and achieve results.(Arofatus Sakdiah et al. 2023)The results of this study demonstrate the need to understand leadership types in detail for further research.

By adopting remote management, companies can gain several benefits. First, it resolves issues more quickly. Second, it increases efficiency and productivity, as employees perform their tasks without a physical location. Third, it allows timely access to global resources and allows for the collaboration of highly skilled individuals wherever they are. Fourth, adapting remote work reduces costs such as utility costs (e.g., electricity, depreciation, shuttle transportation, and travel). As a result, running a remote office appears to have significant benefits for individuals and organizations, ultimately impacting overall organizational goals. However, moving to remote management may negatively impact business. Negative impacts may arise in several ways. First, remote work can create challenges, such as scale control, reducing the quality and frequency of communication between sites and controllers. Second, it appears difficult to maintain a proper schedule for meetings and discussions. Third, it may

hinder teamwork, and it is said that tracking teams working remotely is difficult. Fourth, privacy, security, and confidentiality can be affected, especially when companies deal with sensitive issues and use serious and important data. Thus, to overcome the problem of remote work, it is important for employers and organizations to manage remote work in a desired manner.(Mamand and Alagoz 2021a).

This study found that Internal Control (ICC) has a positive and statistically significant effect on HR Performance ($\beta=0.393$, $p=0.001$). This finding aligns with numerous theories and empirical studies that emphasize the importance of effective control systems in organizations.

Support for these findings can be found in a variety of literature. Studies(Baker et al. 2024)declare uTo improve team cohesion, companies must prioritize structured and consistent communication. This can be achieved through the use of virtual meetings, effective communication technology, and regular check-ins. Training programs that prioritize the development of remote leadership skills can help managers develop effective leadership styles that foster team cohesion and productivity. Investing in and utilizing collaborative technology effectively can improve team interactions and project management, thereby enhancing team cohesion. To capitalize on the positive impact remote work has on team cohesion, employers should help their employees adapt to remote work by offering resources and assistance. To maintain high team morale and minimize burnout, it is important to monitor each individual's workload and ensure their needs are met. Organizations can improve team performance and employee satisfaction by fostering a cohesive and productive remote work environment by recognizing and addressing these critical factors.

The hypothesis that Internal Control (ICC) moderates the relationship between Remote Team Leadership (DTLC) and HR Performance (HR) was not supported ($\beta=-0.078$, $p=0.207$). This indicates that the impact of DTLC on HR does not differ significantly at different levels of ICC..

These results support the expansion of research in the field of internal control and enable a better understanding of internal control systems within business tools such as remote management. The findings of this study can provide support to business decision-makers by strengthening their knowledge of the factors that influence internal control within new business tools such as remote management, confirming that appropriate plans, methods, and control activities enable companies to maintain internal control functions even when the company adopts remote management. Although, the results of this study highlight the importance of control activities in remote management, it is recommended that more research be conducted in the field of internal audit within the remote management framework.(Mamand and Alagoz 2021a).

Virtual leadership, career management and needs need to be modified to meet the expectations and requirements of virtual teams to support their communication, information sharing, technology training and trust leading to communication.(Depoo and Hermida 2024).

Hackman and Oldham (1976) in their theory "Job Characteristics Model" as quoted from (Claudia and Hadiani 2024) suggest that jobs that provide skill variety, task identity, task meaning, autonomy, and feedback have a positive impact on employee motivation and job satisfaction, as well as on employee performance effectiveness. The aforementioned variety is an indicator of internal control. Good job design can improve employee motivation, job satisfaction, and ultimately employee performance effectiveness by leveraging digital technology. Factors influencing employee performance effectiveness include individual abilities (such as skills and knowledge), personality, motivation, organizational support, including the provision of resources and training, and a conducive work environment.

Study (Baker et al. 2024) This study examines factors that influence how team management and interaction methods are affected in a remote work environment. Employers should prioritize technology accessibility, flexible work arrangements, and mental health resources to create an environment that supports increased team cohesion and productivity. By implementing these strategies, remote teams can strengthen bonds, enhance efficiency, and support each other, ultimately improving morale and productivity levels. Factors other than internal controls require further research. Managing employees remotely can inherently face several challenges that ultimately impact the company's performance and its control systems. Therefore, the control environment encompasses the company's integrity and ethical values, parameters that help management carry out its oversight responsibilities. This can be achieved through organizational structure, the definition of authority and responsibility, the development and retention of skilled individuals, and attention to performance indicators, incentives, and bonuses for direct accountability for performance. (Mamand and Alagoz 2021a).

Existing research demonstrates that clan behavior and control are utilized by organizations and leaders to ensure goal alignment between virtual team members and the organization. In this regard, standardized procedures and rules are highly valued in complex projects and highly virtual teams due to their positive effects on performance. At the collective level, the research findings challenge the assumption that establishing standard norms and procedures is sufficient for control in virtual teams. (Pianese et al. 2023).

Some of the reasons why the moderating effect was not found to be significant in this study include:

- 1) Dominant variable effect: The direct influence of Internal Control on strong HR Performance may have dominated, so that the interaction effect becomes less visible or insignificant.
- 2) Measurement characteristics: The specific types of Remote Team Leadership practices and Internal Control mechanisms being measured may not have strong enough synergies or conflicts to produce significant moderating effects.
- 3) Limited range: If the variation in the level of Internal Control or Remote Team Leadership

in the sample is limited, it may be difficult to detect interaction effects.

4) Additive relationship: It is possible that Remote Team Leadership and Internal Control contribute additively to HR Performance, rather than interactively.

4. Conclusion

This study provides empirical evidence of the positive and significant influence of remote team leadership and internal control on improving HR performance. The moderating effect of internal control on this relationship was not statistically significant. The measurement model demonstrated good psychometric properties, and the structural model had adequate explanatory and predictive power. These findings underscore the importance for organizations to prioritize the development and implementation of remote team leadership systems and robust internal control as key strategies for improving HR performance. Further research is needed to explore the complexity of this relationship across contexts and considering additional variables.

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