

Leading Hybrid Public Organizations: Institutional Pathways and Indirect Leadership Effects in State University Teaching Hospitals (RSPTN)

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ABSTRACT

This study aims to analyze the role of leadership in influencing organizational performance in State University Teaching Hospitals (RSPTN) as hybrid public organizations facing institutional complexity. The research employs a mixed-methods approach with a sequential explanatory design, combining quantitative analysis using PLS-SEM and qualitative analysis through in-depth interviews. The findings reveal that leadership does not have a direct effect on organizational performance but rather operates through indirect pathways mediated by learning organizations and institutional characteristics. These results indicate that in hybrid organizations, leadership effectiveness is highly dependent on institutional context and the organization's capacity for learning and adaptation. Qualitative findings further demonstrate that leadership plays a crucial role in navigating institutional complexity, strengthening organizational learning, and distributing authority in a collective manner. This study contributes to the leadership literature by highlighting that the relationship between leadership and performance is indirect and context-dependent. Practically, the findings suggest that strengthening leadership in RSPTN should be accompanied by the development of learning organizations and the alignment of institutional governance to enhance sustainable organizational performance.

Keywords: leadership; hybrid organization; organizational performance; learning organization; institutional characteristics.

INTRODUCTION

State University Teaching Hospitals (RSPTN) are increasingly positioned as key actors in the modern health system, in line with regulatory mandates that designate them as institutions providing integrated health, education, and research services within a unified ecosystem (Frenk et al., 2010; World Bank, 2019). In contrast to teaching hospitals in general, RSPTN operates as a hybrid organization at the intersection of the public, academic, and healthcare sectors (Denis et al., 2015; Thornton et al., 2012). This complexity creates unique governance challenges, particularly in aligning patient-oriented healthcare objectives, tridharma-based academic mandates, bureaucratic demands, and public accountability (Denhardt & Denhardt, 2015; Scott, 2014). In this context, the role of leadership is crucial in managing tensions between institutional logics while promoting the achievement of organizational performance (Greenwood et al., 2011; Thornton et al., 2012; Yukl, 2013).

The role of leadership is widely recognized as a key factor in determining hospital organizational performance (Yukl, 2013; Northouse, 2013). Various studies show that transformational, authentic, and servant leadership contribute positively to organizational performance, service quality, and healthcare worker engagement (Fahlevi et al., 2022; Aboramadan et al., 2021; Choudhary et al., 2013; Trastek et al., 2014). However, most of these studies assume a direct relationship between leadership and performance (Bass & Avolio, 1985; Shipton et al., 2008), without adequately considering how institutional complexity shapes the mechanisms of influence. In the context of hybrid organizations such as RSPTN, where interactions between institutional logics and the distribution of authority

are non-linear, the assumption of such direct relationships is insufficient to explain the dynamics of organizational performance. This condition indicates a gap in the literature regarding how leadership operates within complex hybrid organizations (Greenwood et al., 2011; Denis et al., 2015; Pache & Santos, 2013).

This gap is becoming increasingly relevant in the context of university teaching hospitals in developing countries, including Indonesia, which face simultaneous pressure to improve healthcare service performance while strengthening education and research functions (World Health Organization, 2016; Bloom et al., 2004). In addition, university teaching hospitals are confronted with complex governance challenges, such as limited organizational flexibility, regulatory asynchrony across sectors, and governance dualism between universities and healthcare systems (Saltman et al., 2011; Scott, 2014). In such a system, leadership not only serves as the guiding force of the organization but also as an actor that must navigate institutional complexity (DiMaggio & Powell, 1991; Scott et al., 2000; Saltman et al., 2011). This condition raises a fundamental question: whether leadership truly affects performance directly or whether its effects are mediated by specific organizational and institutional factors (Greenwood et al., 2011; Denis et al., 2015; Thornton et al., 2012).

In line with institutional theory and learning organization perspectives, a growing body of research shows that leadership effectiveness is highly dependent on organizational context, including organizational learning capacity and supportive institutional design (Senge, 1990; Garvin et al., 2008; Soklaridis, 2014). Learning organizations enable the creation, distribution, and transformation of knowledge into practices that improve organizational performance (Pedler et al., 1991; Alrashidi, 2023). On the other hand, institutional characteristics such as autonomy, flexibility, and policy support determine the scope for leadership in strategic decision-making (Daft, 2010; Joiner et al., 2011). However, the integration of these three dimensions—leadership, learning organizations, and institutional characteristics—has rarely been studied comprehensively, especially in the context of university teaching hospitals as hybrid organizations (Denis et al., 2015; Greenwood et al., 2011).

This study aims to fill this gap by proposing an alternative approach that positions leadership not as a direct determinant of performance but as a factor that operates through indirect, contextually embedded, and institutionalized pathways (DiMaggio & Powell, 1991; Thornton et al., 2012). Specifically, this study analyzes how leadership affects the performance of state university teaching hospitals through the mediating roles of learning organizations and institutional characteristics (Duressa & Kidane, 2024; Ludwikowska et al., 2025). Using a mixed-methods explanatory sequential approach, this study not only tests relationships between variables quantitatively but also deepens understanding of the mechanisms and dynamics underlying these relationships through qualitative data (Sugiyono, 2017; Watkins, 2020).

The main contributions of this research are threefold. First, this study extends leadership literature by demonstrating that in hybrid organizations, leadership effectiveness is indirect and strongly shaped by institutional context (Greenwood et al., 2011; Scott, 2014). Second, this research offers a conceptual framework that integrates leadership, learning organizations, and institutional characteristics as a unified model for explaining organizational performance (Senge, 1990; Daft, 2010). Third, from a practical perspective,

the findings provide strategic implications for educational hospital managers and policymakers in designing governance and leadership models that are adaptive to the complexity of hybrid organizations (Saltman et al., 2011; Denhardt & Denhardt, 2015).

The urgency of this research stems from several converging factors. First, Indonesia's JKN (National Health Insurance) program has dramatically increased patient volume in RSPTN, placing unprecedented strain on existing governance and leadership structures. Second, the Indonesian government has invested heavily in establishing new RSPTN without commensurate investment in leadership development or organizational learning systems. Third, the COVID-19 pandemic exposed vulnerabilities in hybrid healthcare organizations, highlighting the need for resilient leadership capable of navigating crises while maintaining academic and service missions (Copeland et al., 2023). Without an empirical understanding of how leadership actually influences performance in this context, policymakers risk investing in ineffective leadership development programs that fail to address underlying institutional mechanisms.

In line with institutional theory and learning organization perspectives, a growing body of research has shown that leadership effectiveness depends heavily on organizational context, including organizational learning capacity and supportive institutional design (Senge, 1990; Garvin et al., 2008; Soklaridis, 2014). Learning organizations enable the creation, distribution, and transformation of knowledge into practices that improve organizational performance (Pedler et al., 1991; Alrashidi, 2023). On the other hand, institutional characteristics such as autonomy, flexibility, and policy support determine the scope for leadership in strategic decision-making (Daft, 2010; Joiner et al., 2011). However, the integration of these three dimensions—leadership, learning organizations, and institutional characteristics—has rarely been studied comprehensively, especially in the context of university teaching hospitals as hybrid organizations (Denis et al., 2015; Greenwood et al., 2011).

Thus, this study not only addresses how leadership influences performance but also explains why and through what mechanisms such influence occurs in the context of hybrid public organizations such as university teaching hospitals.

METHOD

This study uses a mixed methods approach with a sequential explanatory design, namely the collection and analysis of quantitative data in the first stage, followed by qualitative data to deepen and explain quantitative findings (Sugiyono, 2017). This approach was chosen to test the relationships between variables while understanding the mechanisms of indirect pathways in the context of hybrid organizations.

The research was conducted at seven State University Teaching Hospitals (RSPTN) in the Java-Bali region. The research subjects include leaders (President Directors), structural officials (middle managers) and employees/professionals (medical personnel, nursing, other health workers, and administrative staff) who have strategic and operational roles in hospital organizations. A total of 102 respondents at the quantitative stage were selected through purposive sampling techniques based on the criteria for the position, and had an understanding of governance and organizational performance. The qualitative stage involves

key informants who are purposively selected to represent a variety of institutional characteristics and leadership practices in each hospital.

Quantitative data collection was carried out through a structured questionnaire using a five-point Likert scale. The research instrument measures the variables of leadership, learning organization, institutional characteristics, and organizational performance adapted from standardized instruments in the literature. Before use, the instrument is tested for validity and reliability. The validity test was carried out through construct evaluation using outer loading values and Average Variance Extracted (AVE), while reliability was tested using Cronbach's alpha and composite reliability. Qualitative data was collected through semi-structured in-depth interviews with hospital leaders. Interviews were conducted to explore how leadership operates in the context of institutional complexity, including how leaders translate and internalize the organization's vision and mission into day-to-day managerial practice. In addition, the interview also aims to understand how state higher education hospitals (RSPTN) operationally carry out the mandate of the tridharmam, namely health, education, and research services, as well as how coordination mechanisms, decision-making, and resource management are carried out to achieve the performance targets that have been set. This approach allows researchers to identify the role of leadership in bridging diverse institutional demands, as well as explain quantitative findings, particularly related to the mechanisms of indirect effects between leadership, organizational capacity, and hospital performance.

Quantitative data analysis was carried out using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The analysis was carried out in two stages, namely the evaluation of the measurement model (outer model) and the evaluation of the structural model (inner model), including testing the direct and indirect relationships between variables. Qualitative data were analyzed using a thematic analysis approach, which included the processes of transcription, coding, theme identification, and interpretation. This analysis aims to identify patterns and mechanisms that explain the relationships between variables in a quantitative model.

Data integration is carried out at the interpretation stage by linking quantitative and qualitative findings to provide a more comprehensive understanding of the influence of leadership in the context of hybrid organizations.

The research was carried out in two main stages. The first stage is the collection and analysis of quantitative data through surveys to test models of relationships between variables. The second stage is the collection and analysis of qualitative data through interviews to explain the quantitative results.

Figure: Research Methodology Flow.

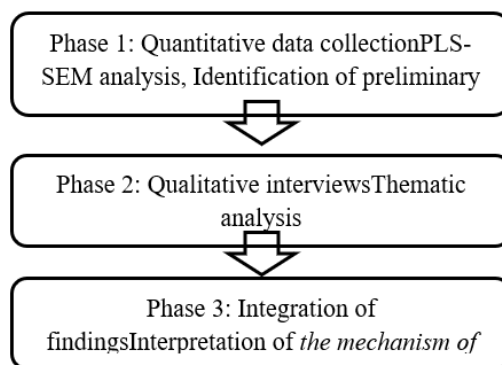


Figure 1: Mixed-methods sequential design (quantitative → qualitative → integration)

This research has fulfilled the principles of research ethics. All respondents and informants were given an explanation of the purpose of the research and gave informed consent before participating. The data collected is kept confidential and anonymized to protect the identity of respondents. Participation is voluntary, and respondents can resign at any time without consequences. This research has obtained ethical clearance from several Hospital Research Ethics Committees and the Faculty of Medicine, including the University of Indonesia Hospital (No.S-061/KETLIT/RSUI/IX/2022), Airlangga University Hospital (No.185/KEP/2023), the Faculty of Medicine, Udayana University (No.2527/UN14.2.2.VII.14/LT/2023), and the Faculty of Medicine, Sebelas Maret University (No. 194/UN27.06.11/KEP/EC/2023). In addition, this research has also obtained a research permit from related institutions.

RESULT AND DISCUSSION

Descriptive and Measurement Model Results

The initial analysis was carried out to evaluate the quality of the measurement model. All indicators show an outer loading value of > 0.70 and an Average Variance Extracted (AVE) value of > 0.50 , indicating adequate convergent validity. In addition, the composite reliability value and Cronbach's alpha > 0.70 indicate that the construct used in this study has good reliability.

Descriptively, the leadership variable showed a relatively high average score, reflecting the existence of strong leadership practices at RSPTN. However, the variation in scores on the variables of institutional characteristics and learning organizations shows the heterogeneity of the context between teaching hospitals.

Structural Model and Hypothesis Testing

The results of the PLS-SEM analysis showed that the direct relationship between leadership and organizational performance was not statistically significant (β not significant, $p > 0.05$). On the other hand, leadership has a significant influence on the mediation variables, namely the organization of learners and institutional characteristics.

Furthermore, these two variables have been proven to have a significant influence on organizational performance. The analysis of indirect effects shows that leadership contributes to organizational performance through the mediation channel.

These findings indicate that the influence of leadership in the context of RSPTN is not direct, but rather works through organizational and institutional mechanisms.

Qualitative Findings: Institutional Pathways of Leadership

The results of the in-depth interviews identified three key mechanisms that explain how leadership works in the context of hybrid organizations:

- 1) Leaders of public college hospitals play a strategic role in navigating institutional complexities, by aligning university demands, government regulations, and health care needs that are not always in line.
- 2) Leadership plays a role in strengthening learners' organizations by encouraging organizational learning through cross-professional collaboration and adaptive ability to evolving policy dynamics.
- 3) The distribution of authority and decision-making is reflected in processes that are collective and not entirely centralized, reflecting the characteristics of hybrid organizations.

These qualitative findings reinforce the quantitative results that leadership influence is indirect and mediated by the organizational context.

This study aims to analyze how leadership affects organizational performance in the context of a college education hospital as a hybrid organization. The results of the study are shown in Gb.1 Results of modeling analysis with SEM after data validation is carried out, that the influence of leadership on organizational performance is not direct, but works through the mediating channels of learning organizations and institutional characteristics, which simultaneously form a mechanism for achieving performance in the context of hybrid organizations.

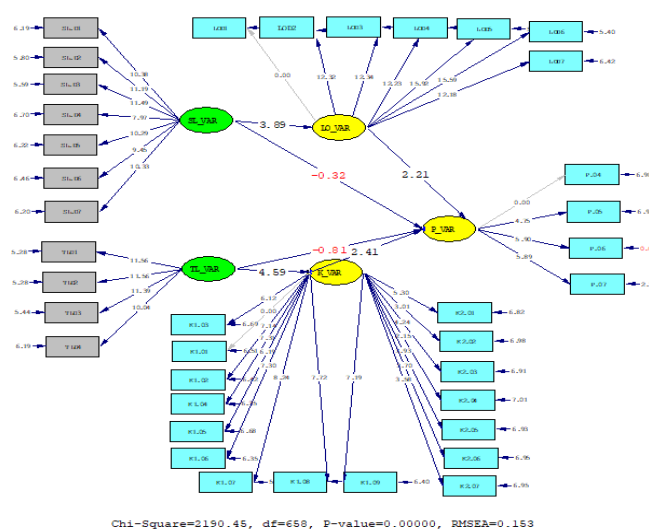


Figure 2. Results of modeling analysis with SEM after data validation

These findings differ from most of the leadership literature that emphasizes the direct relationship between leadership and organizational performance (Bass & Avolio, 1985; Yukl, 2013; Northouse, 2013). In the context of RSPTN, institutional complexity causes the relationship to become more non-linear (Greenwood et al., 2011; Pache & Santos, 2013).

Based on the results of the analysis of the variables, the indirect effect between the independent variables of leadership (servant leadership/SL) and transformational leadership

(TL) on the variables of performance / performance (P) through the variables of learning organization (LO) and organizational performance (K) as shown in the following table:

Table 1. Descriptive Statistics of Research Variables

Variable	Gamma (γ)	T	R2	Remarks
Effects Before validity			0,029	
Effect of SL on P through LO	0.10	3,89		Significant
Influence of TL on P through K	0.11	4,58		Significant
Effect After Validity			0,20	
Effect of SL on P through LO	0.10	3,90		Significant
Influence of TL on P through K	0.11	4,55		Significant

Table 1 shows that there is a significant indirect influence of the SL variable on performance through LO ($\lambda = 0.10$; $t = 3.90$). This suggests that SL significantly affects performance through LO. The TL variable had a significant indirect effect on performance through K ($\lambda = 0.11$; $t = 4.55$). This suggests that TL significantly affects performance through K.

Theoretically, these findings reinforce the perspective of institutional complexity, which states that hybrid organizations operate within a variety of institutional logics that often conflict with each other (Thornton et al., 2012; Greenwood et al., 2011). In this condition, leadership functions not only as a director, but as an actor who navigates and manages the tension between these logics (Denis et al., 2015; Battilana & Lee, 2014).

This understanding was empirically strengthened through case studies on two RSPTNs with different phases of organizational development, namely RSPTN in the initiation phase (Case A) and RSPTN in the consolidation-growth phase (Case B).

In Case A, leadership develops in the context of an existential crisis, when the organization is in an initial state that is not stable institutionally, governance, and resources. In this situation, leadership is survival-oriented, with a focus on operational stabilization, internal trust restore, and organizational foundation building. Leadership tends to be firm and centered, and requires courage in the face of high uncertainty. These findings show that in the early phases of organizational development, leadership functions as an institutional substitution for the lack of established systems (Mintzberg, 1983; Daft, 2010; Yukl, 2013).

In contrast, in Case B which has entered a phase of consolidation and growth, the leadership shows a more strategic and transformational orientation. The focus of leadership shifts to building organizational trust, strengthening learning systems, and optimizing assets effectively. Interventions such as remuneration system structuring, human resource development, and physical asset activation show that leadership plays a role as a performance lever through strategic resource management. In this context, leadership no longer functions as a rescue mechanism, but rather as an accelerator of organizational growth, in line with the literature on transformational leadership and learning organizations (Bass & Avolio, 1994; Senge, 1990; Garvin et al., 2008).

The comparison of the two cases confirms that the absence of a dominant leadership style is not an empirical weakness, but a reflection of leadership dynamics that are situational and based on organizational phases. In the initial phase, leadership tends to be directive and

centralized, while in the consolidation and growth phases it develops to be more participatory, strategic, and long-term oriented. Thus, leadership at RSPTN works as an adaptive mechanism that bridges structural limitations, institutional pressures, and ever-increasing performance demands (Northouse, 2013; Yukl, 2013; Denis et al., 2015).

These findings enrich the conceptual framework of the research by showing that the effectiveness of leadership is not determined by conformity to one particular theoretical typology, but by the ability of leaders to adapt leadership approaches to the needs of the organization at each phase of its development. In the relatively young context of RSPTN, leadership serves as a dynamic institutional capacity, which not only directs the organization, but also shapes and accelerates the process of institutionalization of organizational systems, cultures, and practices (DiMaggio, 1991; Scott, 2014; Greenwood et al., 2011).

Furthermore, the results of this study show that learning organizations play an important role in translating leadership into organizational performance. This is in line with the literature that emphasizes the importance of organizational learning in improving adaptivity and performance (Marsick & Watkins, 2003; Senge, 1990; Garvin et al., 2008).

From a practical perspective, this finding has important implications for the management of RSPTN. Strengthening leadership capacity is not enough through the development of individual competencies, but must also be followed by strengthening organizational systems and institutional governance. In addition, the results of this study show that an effective leadership approach in a hybrid organization is one that is able to manage collaboration, build harmony between actors, and facilitate organizational learning.

However, this study has some limitations. First, the limited number of samples in a few RSPTNs in Indonesia can limit the generalization of findings. Second, this study has not fully explored the variation in institutional contexts between hospitals. Therefore, further research is recommended to expand the scope of the site and consider a longitudinal approach.

CONCLUSION

This study shows that the influence of leadership on organizational performance at State University Teaching Hospitals is not direct, but works through the mediation of learning organizations and institutional characteristics. These findings confirm that in the context of hybrid organizations, performance is not solely determined by the individual capacity of the leader, but by the leadership's ability to navigate institutional complexities and activate the organization's learning mechanisms. Thus, this study expands the leadership literature by showing that the relationship between leadership and performance is nonlinear and depends on the institutional pathways formed in the organization. Practically, the results of this study imply that strengthening leadership in state university teaching hospitals needs to be accompanied by the development of learning organizations and the alignment of institutional governance across sectors. An effective leadership approach is one that is able to integrate various institutional logics while encouraging organizational adaptation in a sustainable manner. Nonetheless, limitations in sample scope and research context suggest the need for follow-up studies with longitudinal and contextual expansion approaches to test the consistency of findings as well as identify other mediating mechanisms in hybrid organizations.

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