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DRIVING BUSINESS PERFORMANCE IN THAI PRIVATE HOSPITALS: LEADERSHIP, MARKET ORIENTATION, INNOVATION, AND COMPETITIVE DYNAMICS

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Abstract

This study investigates the strategic mechanisms driving business performance in Thai private hospitals by examining the complex interplay among transformational leadership, market orientation, innovation excellence, and industry competition. Grounded in Dynamic Capabilities Theory and Service-Dominant Logic, the research rigorously evaluates a moderated mediation structural model. Primary data were collected from 210 healthcare executives through a structured survey and subsequently analyzed using partial least squares structural equation modeling (PLS-SEM). The empirical findings reveal that both transformational leadership and market orientation significantly foster excellence in organizational innovation, which in turn directly and robustly enhances overall business performance. Furthermore, innovation excellence serves as a critical mediating mechanism connecting these internal dynamic capabilities to sustainable firm success. Crucially, the study demonstrates that industry competition positively moderates the relationship between innovation excellence and business performance, indicating that innovative healthcare strategies yield significantly greater competitive advantages in highly contested environments. These findings have vital managerial implications, urging healthcare administrators to actively cultivate visionary leadership and proactive market-sensing cultures to drive sustainable innovation and performance amid escalating competitive pressures systematically.

Keywords: Transformational Leadership, Market Orientation, Innovation Excellence, Industry Competition, Business Performance

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Introduction

In today's turbulent healthcare landscape, the survival and competitiveness of private hospitals increasingly depend on their ability to adapt to rapid environmental change. Digital transformation, patient empowerment, and intensifying global competition have heightened the need for new forms of leadership and market responsiveness (Porter, 1990; Teece, 2018). Consequently, private hospitals can no longer rely solely on traditional clinical excellence or reputation; instead, they must cultivate innovation excellence, defined as the continuous generation and implementation of new ideas, processes, and service models that create superior patient value and organizational performance.

Transformational leadership plays a pivotal role in fostering such transformation. Leaders who demonstrate idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration create an organizational climate that encourages creativity, learning, and innovation (Bass & Avolio, 1994; Gumusluoglu & Ilsev, 2009). At the same time, market orientation enables organizations to systematically sense and respond to patient needs and competitive dynamics (Narver & Slater, 1990; Kohli & Jaworski, 1990). In private hospitals, a strong market orientation supports patient-centered service development and enhances innovation excellence by facilitating continuous adaptation to external change.

However, the extent to which innovation translates into superior business performance is shaped by industry competition (Zahra & Covin, 1993; Li & Atuahene-Gima, 2001). Under intense competitive pressure, hospitals that effectively leverage innovation are better positioned to differentiate their services and sustain their competitive advantage, whereas rigid, bureaucratic organizations risk strategic inertia. Although prior studies have examined the relationships among leadership, market orientation, innovation, and performance (e.g., Menguc & Auh, 2006; Tajeddini, 2010), empirical evidence from private hospitals—particularly in Thailand—remains limited. This context is characterized by strict regulatory requirements, high operational complexity, and a safety-oriented culture that may constrain innovation-related risk taking.

Moreover, existing research has largely focused on manufacturing, SMEs, or hospitality industries and has typically treated competition as a direct antecedent of performance rather than as a contextual boundary condition. In addition, few studies have integrated transformational leadership and market orientation as internal dynamic capabilities within a single moderated mediation framework. Addressing these gaps, this study examines how transformational leadership and market orientation jointly foster innovation excellence and how industry competition conditions the impact of innovation on business performance in private hospitals in Thailand.

Accordingly, this study aims to develop and empirically test a structural model explaining the causal relationships among transformational leadership, market orientation, innovation excellence, and business performance, while examining the moderating role of industry competition. The study contributes to Dynamic Capability Theory and Service-Dominant Logic by extending their application to the healthcare service context. In practical terms, the findings provide insights for hospital executives seeking to design innovation-driven strategies that enhance competitiveness and sustain organizational performance amid increasing market uncertainty.

Literature Review

Transformational Leadership (TL), Market Orientation (MO), and Innovation Excellence (IE)

Transformational Leadership (TL) is a leadership approach that motivates individuals to transcend personal interests and align with the organization's collective vision and mission (Burns, 1978; Bass, 1985). By articulating a compelling vision, fostering trust, and stimulating

intellectual engagement, transformational leaders create conditions that support creativity and organizational learning (Avolio & Bass, 2004). Such leadership is instrumental in cultivating a market-oriented culture that enables organizations to sense and respond effectively to customer needs and competitive dynamics (Kohli & Jaworski, 1990; Narver & Slater, 1990). Through inspirational motivation and individualized consideration, transformational leaders encourage customer-centric thinking, cross-functional collaboration, and proactive learning from market trends. Consistent with Narver & Slater (1990), leadership plays a central role in developing learning-oriented and market-driven organizations, positioning transformational leaders as catalysts who translate market knowledge into innovation-oriented actions.

Empirical evidence strongly supports this linkage. Menguc et al. (2007) demonstrated that TL positively influences market orientation, thereby enhancing competitive advantage and performance. Subsequent studies by Le & Lei (2019) and Le & Le (2023) confirmed that market orientation mediates the relationship between TL and innovation. In the Thai context, Suriyasenee et al. (2024) likewise found that TL significantly strengthens market orientation, which in turn enhances innovation capability. Collectively, these findings indicate that transformational leadership is a strategic enabler of market orientation, which, in turn, drives innovation excellence by fostering learning, adaptability, and responsiveness to market dynamics.

H1: Transformational Leadership (TL) has a direct positive influence on Market Orientation (MO) among private hospitals.

H2: Transformational Leadership (TL) has a direct positive influence on Innovation Excellence (IE).

H3: Market Orientation (MO) mediates the relationship between Transformational Leadership (TL) and Innovation Excellence (IE).

Market Orientation (MO) and Innovation Excellence (IE)

Market Orientation (MO) enhances Innovation Excellence (IE) through market sensing, knowledge integration, and the development of an innovation-supportive culture (Hurley & Hult, 1998; Hult et al., 2004). Firms with strong MO are more adaptable and better able to generate innovations that meet customer needs and create superior value (Calantone et al., 2002; Ngo & O'Cass, 2012). Empirical evidence confirms this positive relationship across industries (Grinstein, 2008; Jiménez-Jiménez & Sanz-Valle, 2011). Accordingly, MO serves as a key organizational capability that drives innovation excellence within private hospitals. Based on the theoretical rationale and empirical evidence, the following hypothesis is formulated:

H4: Market Orientation (MO) has a direct positive effect on Innovation Excellence (IE) among private hospitals.

Innovation Excellence (IE) and Business Performance (BP)

Innovation Excellence (IE) directly enhances Business Performance (BP) by improving organizational efficiency, service quality, and competitive advantage (Saunila, 2017; Stojanović & Stanković, 2021). Evidence from the healthcare sector shows that innovative hospitals achieve both financial and non-financial gains (Matei & Francu, 2025; Klinsresuk et al., 2025). Innovation thus acts as a strategic resource that links capability development to sustainable business outcomes. Drawing upon these previous studies, the following hypothesis is proposed:

H5: Innovation Excellence (IE) has a direct positive effect on Business Performance (BP) among private hospitals.

The Moderating Role of Industry Competition (CI) between Innovation Excellence (IE) and Business Performance (BP)

Industry competition (CI) is an external environmental factor that critically shapes the effectiveness of organizational innovation strategies (Porter, 1990; Zahra & Covin, 1993). As

competitive intensity increases, organizations are compelled to leverage innovation more effectively to differentiate their services and sustain strategic advantage. Accordingly, competition serves as a catalyst, strengthening the relationship between innovation excellence (IE) and business performance (BP).

In the private hospital context, where competition occurs at both national and regional levels, the ability to develop and implement innovative service models—such as digital health platforms and remote care systems—has become essential for value creation and differentiation (Li & Atuahene-Gima, 2001). Empirical evidence supports this moderating role. Huang (2023) found that competitive intensity positively moderates the relationship between innovation efficiency and firm performance, while Yao et al. (2026) similarly reported that competition enhances the positive impact of medical innovation on organizational outcomes. These findings suggest that under high levels of competition, the performance benefits of innovation become more pronounced. Drawing on this literature, the following hypothesis is proposed:

H6: Industry Competition (CI) positively moderates the relationship between Innovation Excellence (IE) and Business Performance (BP).

The Mediating Role of Innovation Excellence (IE) between Transformational Leadership (TL) and Business Performance (BP)

Transformational Leadership (TL) inspires creativity, knowledge sharing, and experimentation, which cultivate Innovation Excellence (IE). In turn, IE serves as the mechanism that translates leadership influence into superior business results (Bass & Avolio, 1994; Gumusluoglu & Ilsev, 2009; Matei & Francu, 2025). This suggests that leadership-driven innovation acts as a pathway to enhanced organizational performance in private hospitals. Based on the theoretical reasoning and empirical evidence discussed above, the following hypothesis is proposed:

H7: Innovation Excellence (IE) mediates the relationship between Transformational Leadership (TL) and Business Performance (BP).

The Mediating Role of Innovation Excellence (IE) between Market Orientation (MO) and Business Performance (BP)

Market-oriented organizations use customer and competitor insights to drive innovation that improves service delivery and performance (Calantone et al., 2002; Tajeddini, 2010). Through continuous innovation, firms enhance competitiveness and long-term sustainability (Matei & Francu, 2025). Hence, IE serves as a mediating mechanism through which MO affects BP. Based on both theoretical perspectives and empirical evidence, the following hypothesis is proposed:

H8: Innovation Excellence (IE) mediates the relationship between Market Orientation (MO) and Business Performance (BP).

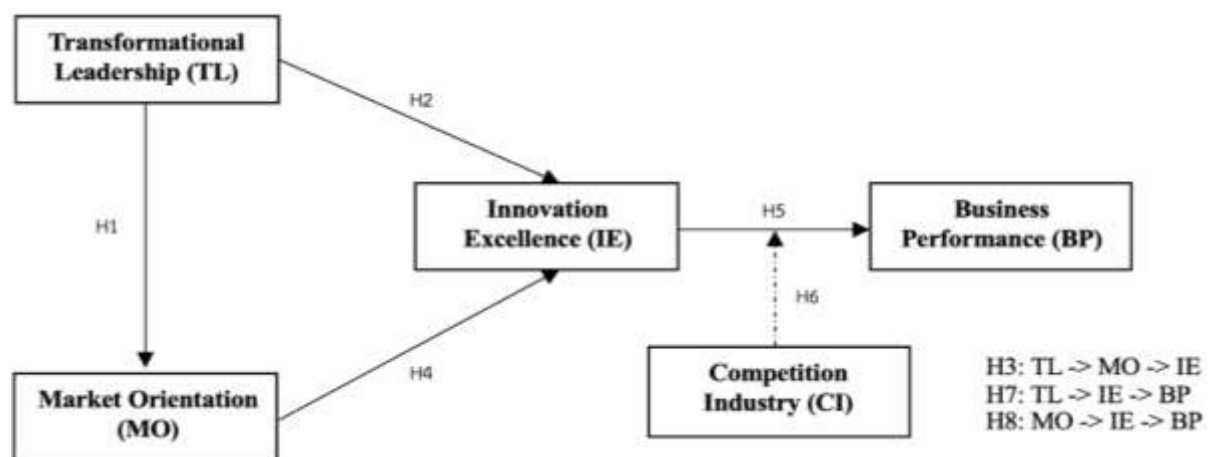


Figure 1 Conceptual Framework

Drawing upon Dynamic Capabilities Theory, this study develops a conceptual framework that illustrates the relationships among all variables and links them to the proposed hypotheses, as shown in the figure. Transformational leadership is conceptualized as a micro-foundation that enables organizations to sense, seize, and reconfigure resources; market orientation represents a market-sensing capability; innovation excellence reflects a reconfiguring capability through which knowledge and ideas are transformed into valuable services and processes; industry competition functions as an external environmental contingency that conditions the effectiveness of innovation deployment; and business performance represents the organizational outcome of these dynamic capability processes.

Research Methodology

Data Collection and Sampling

The target population for this study comprised executives and deputy executives from 425 private hospitals and healthcare establishments in Thailand (Ministry of Public Health, 2023). To ensure comprehensive representation, postal data-collection questionnaires were distributed to the entire population. The appropriate sample size for analyzing causal structural models with latent variables was determined based on Wiratchai (1999), who recommended a ratio of 10 to 20 cases per observed variable. Given that the model includes 12 observed variables, a sample size of 120-240 was required. This aligns with Hoelter's (1983) statistic, which posits that an acceptable sample size must exceed 200. Ultimately, 210 valid responses were obtained from the population, representing a sufficient response rate and satisfying the methodological thresholds for robust structural analysis without the need for simple random sampling.

Measure of Constructs

The development and validation of the research instrument were conducted using a questionnaire aligned with the research conceptual framework and the operational definitions of the variables. The questionnaire was divided into five sections as follows:

Section 1: Opinions regarding Transformational Leadership (TL), consisting of: 1) Idealized Influence, 2) Intellectual Stimulation, and 3) Inspirational Motivation. Section 2: Opinions regarding Market Orientation (MO), consisting of: 1) Customer Orientation, 2) Competitor Orientation, and 3) Interfunctional Coordination. Section 3: Opinions regarding Innovation Excellence (IE), consisting of: 1) Medical Product Innovation, 2) Process Innovation, and 3) Service Innovation. Section 4: Opinions regarding Industry Competition (CI), consisting of: 1) Competitive Intensity, 2) Competitor Density, and 3) Competitor Movement Frequency. Sections 1-4 employed a 5-point Likert-type scale, where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

Data Analysis

To validate the proposed research model, we used partial least squares structural equation modeling (PLS-SEM, also referred to as composite-based structural equation modeling). PLS is frequently used in exploratory studies, as it requires a more conservative interpretation of results than traditional PLS-SEM (Hair et al., 2017). A PLS path model analysis was conducted using SmartPLS (version 4; Smart PLS GmbH, Bönningstedt, Germany). First, confirmatory factor analysis was performed to eliminate items with factor loadings below the 0.7 threshold. Next, the internal consistency, reliability, and validity of the theoretical model were assessed with the remaining items. Finally, the structural model was estimated, and the proposed model was verified. To evaluate reliability, Cronbach's alpha and composite reliability were utilized, while convergent validity was assessed. The average variance extracted (AVE) was examined to ensure it exceeded the 0.5 threshold. Additionally, discriminant validity was assessed by comparing the correlation between latent variables with the square root of AVE to determine whether the square root of AVE exceeded the correlation. The comprehensive research

hypothesis test was conducted using bootstrapping (5,000 iterations, 95% significance level) with the PLS algorithm.

To mitigate the risk of common method bias from using a single survey instrument, several procedural remedies were implemented during data collection. Respondents were assured of anonymity and confidentiality, participation was voluntary, and there were no right or wrong answers. In addition, Harman's single-factor test indicated that no single factor accounted for the majority of the variance, suggesting that common method bias is unlikely to be a serious concern in this study.

Research Results

Evaluation of the Measurement Model

The analysis confirmed that the data from all observed variables were normally distributed, as both skewness and kurtosis values were close to zero. According to Schumacker & Lomax (2010) criteria, skewness should not exceed ± 1.00 , and kurtosis should not exceed ± 1.50 , indicating that the collected data were appropriate for parametric statistical analysis. Regarding convergent validity, the Average Variance Extracted (AVE) values for all latent constructs were greater than the threshold of 0.50 (Henseler et al., 2015). This result demonstrates that all observed indicators adequately represent their respective latent constructs. The reliability of the constructs was assessed through Cronbach's alpha (α) and Composite Reliability (CR). All Cronbach's alpha coefficients exceeded 0.70, ranging from 0.757 to 0.926, while composite reliability coefficients ranged from 0.86 to 0.954. These values indicate satisfactory internal consistency and construct reliability across all measurement items. Specifically, Transformational Leadership (TL) exhibited a Cronbach's alpha of 0.869, CR of 0.91, and AVE of 0.717, confirming strong construct reliability. Market Orientation (MO) had $\alpha = 0.757$, CR = 0.86, and AVE = 0.672, while Innovation Excellence (IE) recorded $\alpha = 0.782$, CR = 0.873, and AVE = 0.695. For Industry Competition (CI), reliability indices were notably high ($\alpha = 0.926$, CR = 0.954, AVE = 0.873), reflecting strong measurement consistency. Finally, Business Performance (BP) also demonstrated high reliability with $\alpha = 0.864$, CR = 0.908, and AVE = 0.713. As shown in Table 1.

Based on these results, it can be concluded that all measurement items used in the study are valid and reliable indicators of their corresponding latent variables. Consequently, the constructs satisfy the criteria for convergent validity and reliability, confirming their suitability for subsequent structural model analysis.

Table1 Descriptive statistics, Normality assessment, and Validity of variables

Validity	Mean	SD.	Loading	R-sq	Cronbach's alpha	P _A	P _C	AVE
TL1	4.583	0.477	0.840	0.706	0.869	0.872	0.91	0.717
TL2	4.667	0.408	0.840	0.706				
TL3	4.486	0.471	0.776	0.602				
MO1	4.639	0.450	0.828	0.686	0.757	0.764	0.86	0.672
MO2	4.361	0.623	0.808	0.653				
MO3	4.556	0.497	0.865	0.748				
IE1	4.444	0.524	0.869	0.755	0.782	0.784	0.873	0.695
IE2	4.319	0.605	0.975	0.951				
IE3	4.338	0.567	0.955	0.912				
CI1	4.612	0.642	0.777	0.604	0.926	0.935	0.954	0.873
CI2	4.442	0.656	0.812	0.659				
CI3	4.475	0.598	0.903	0.815				
BP1	3.854	0.930	0.827	0.684	0.864	0.882	0.908	0.713
BP2	4.125	0.665	0.923	0.852				

Validity	Mean	SD.	Loading	R-sq	Cronbach's alpha	P _A	P _C	AVE
BP3	4.438	0.506	0.748	0.560				
BP4	4.500	0.540	0.871	0.759				

Note: AVE: average variance extracted, CR: composite reliability, CA: Cronbach's alpha. $p < .001$.

From the analysis to assess discriminant validity among latent variables using the Fornell-Larcker criterion (Fornell & Larcker, 1981), the results shown in Table 2 indicate that most diagonal values (the square roots of AVE) are higher than the correlations between constructs. Although the correlation between TL and IE (0.864) slightly exceeds their respective diagonal values (0.847 and 0.834), the latent variables generally demonstrate adequate discriminant validity for further structural evaluation.

Table 2 Discriminant validity (Fornell-Larcker criterion)

Variables	Fornell-Larcker criterion				
	TL	MO	IE	CI	BP
TL	0.847				
MO	0.720	0.820			
IE	0.864	0.746	0.834		
CI	0.627	0.530	0.772	0.934	
BP	0.558	0.668	0.723	0.730	0.844

Evaluation of the Structural Model

From the evaluation of the structural model, the predictive relevance (Q^2) was assessed using cross-validated redundancy and cross-validated communality. As shown in Table 3, all endogenous latent variables have Q^2 values greater than 0, indicating that the model has predictive relevance. Specifically, the Q^2 values for Market Orientation (0.526), Innovation Excellence (0.391), and Business Performance (0.667) are all greater than 0.35, indicating strong predictive relevance. Similarly, the cross-validated communality Q^2 values for all constructs — TL (0.638), MO (0.924), IE (0.724), CI (0.904), and BP (0.865) — exceed the threshold of 0.35, demonstrating strong predictive validity across the measurement model. Therefore, the proposed structural model exhibits a very high level of predictive capability and reliability.

Table 3 Predictive relevance (Q -sq)

	Cross-validated redundancy Q -sq	Cross-validated communality Q -sq
TL		0.638
MO	0.526	0.924
IE	0.391	0.724
CI		0.904
BP	0.667	0.865

Note: Low ($Q^2 > 0$), medium ($Q^2 > 0.15$) and high ($Q^2 > 0.35$)

The results presented in Table 4 show the Average Variance Extracted (AVE) and Coefficient of Determination (R^2) values for each latent variable in the structural model. The AVE values range from 0.672 to 0.873, all of which exceed the threshold of 0.50, indicating satisfactory convergent validity of all constructs. The R^2 values for the endogenous variables—Market Orientation (0.532), Innovation Excellence (0.404), and Business Performance (0.852)—indicate that the model explains a substantial proportion of the variance in these constructs.

The overall Goodness-of-Fit (GOF) value was calculated using the square root of the product of the mean AVE (0.734) and mean R^2 (0.596), resulting in a GOF value of 0.661. Based on the criteria suggested by Tenenhaus et al. (2005), a GOF value above 0.36 indicates a high level of model fit. Therefore, the GOF value of 0.661 confirms that the proposed structural model demonstrates an excellent overall fit, with strong explanatory power and a high degree of consistency between the measurement and structural models.

Table 4 Goodness-of-Fit (GO) results

Variables	AVE	R-sq
TL	0.717	
MO	0.672	0.532
IE	0.695	0.404
CI	0.873	
BP	0.713	0.852
Mean value	0.734	0.596
Multiply of mean value	0.437	
GOF	0.661	

Note: AVE, average variance extracted. GOF = low (0.10-0.02), medium (0.25-0.36), and high (> 0.36).

Path Analysis and Hypothesis Testing

The results of the structural model analysis (Table 5) revealed that all hypothesized relationships were statistically significant ($p < 0.05$), indicating strong empirical support for the proposed conceptual framework. Specifically, Transformational Leadership (TL) demonstrated a significant positive effect on both Market Orientation (MO) ($\beta = 0.730$, $t = 30.130$, $p < 0.001$) and Innovation Excellence (IE) ($\beta = 0.516$, $t = 8.199$, $p < 0.001$), confirming that transformational leaders play a key role in promoting market-oriented and innovation-driven behaviors within private hospitals.

Moreover, MO significantly influenced IE ($\beta = 0.152$, $t = 2.576$, $p = 0.010$), and IE had a strong positive effect on Business Performance (BP) ($\beta = 0.609$, $t = 15.892$, $p < 0.001$), indicating that innovation excellence directly enhances organizational outcomes.

The moderating effect of Industry Competition (CI) on the relationship between IE and BP was also significant ($\beta = 0.107$, $t = 3.174$, $p = 0.002$), implying that innovation exerts an even greater impact on business performance under highly competitive market conditions.

In addition, the indirect (mediating) paths were all significant. TL influenced IE through MO ($\beta = 0.111$, $t = 2.597$, $p = 0.009$), TL influenced BP through IE ($\beta = 0.314$, $t = 6.813$, $p < 0.001$), and MO influenced BP through IE ($\beta = 0.093$, $t = 2.624$, $p = 0.009$). These results confirm that Innovation Excellence serves as a critical mediating mechanism linking leadership and market orientation to business performance.

Overall, the findings validate that transformational leadership and market orientation jointly foster innovation excellence, which in turn enhances business performance—particularly in competitive healthcare environments.

Table 5 Results of path analysis and hypothesis testing

H	Path	B	STDEV	t-test	P value	Results
H1	TL -> MO	0.730	0.024	30.130	0.000	Supported
H2	TL -> IE	0.516	0.063	8.199	0.000	Supported
H3	TL -> MO -> IE	0.111	0.043	2.597	0.009	Supported
H4	MO -> IE	0.152	0.059	2.576	0.010	Supported
H5	IE -> BP	0.609	0.038	15.892	0.000	Supported

H	Path	B	STDEV	t-test	P value	Results
H6	CI x IE -> BP	0.107	0.034	3.174	0.002	Supported
H7	TL -> IE -> BP	0.314	0.046	6.813	0.000	Supported
H8	MO -> IE -> BP	0.093	0.035	2.624	0.009	Supported

When considering the variance of the endogenous variables, the results showed that Market Orientation (MO), Innovation Excellence (IE), and Business Performance (BP) achieved R^2 values of 53.2%, 40.4%, and 85.2%, respectively. These values indicate that the structural model demonstrates strong explanatory power, particularly for Business Performance, which is explained at a high level. At the same time, MO and IE are also explained to a substantial extent.

Overall, the findings confirm that Transformational Leadership (TL) and Market Orientation (MO) positively influence Innovation Excellence (IE), which subsequently enhances Business Performance (BP), as illustrated in Figure 2.

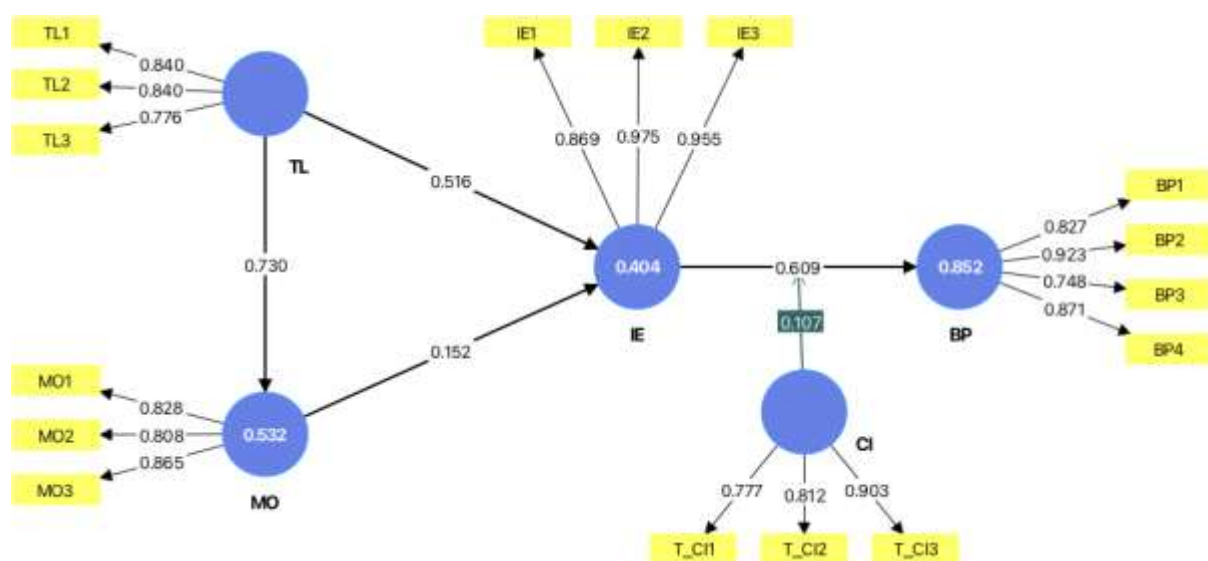


Figure 2 Measurement Model

Conclusion and Discussion

The findings demonstrate that Transformational Leadership (TL) has a positive and significant influence on Market Orientation (MO), supporting Transformational Leadership Theory (Bass, 1985) and the Resource-Based View, which conceptualize leadership as a strategic organizational resource. This result is consistent with recent empirical evidence indicating that TL enhances organizational performance through innovation and dynamic capabilities (Agazu et al., 2025). In Thai private hospitals, transformational leaders play a critical role in fostering a market-driven culture by articulating a clear vision, engaging employees, and encouraging responsiveness to market information.

The results further indicate that TL positively and significantly influences Innovation Excellence (IE), corroborating the propositions of Bass (1985) and Avolio & Bass (2004) that transformational leaders stimulate creativity and innovative behavior. This finding aligns with recent studies in both Thai and international contexts, which confirm that TL promotes an innovation-oriented culture that enhances organizational performance (Ali et al., 2023; Suriyasene et al., 2024; Agazu et al., 2025). These results suggest that transformational leadership functions as an innovation accelerator by fostering learning, experimentation, and adaptive thinking—capabilities that are particularly vital for private hospitals operating in competitive environments.

In addition, TL was found to exert an indirect effect on IE through MO, consistent with the Resource-Based View (Barney & Clark, 2007) and the Market Information Processing perspective. This finding reinforces the view that leadership shapes innovation outcomes by cultivating a market-oriented culture that transforms customer and competitor knowledge into actionable innovation strategies. Similar mediating mechanisms have been observed in prior studies, particularly in the Thai organizational context (Suriyasene et al., 2024; Agazu et al., 2025).

The findings also confirm that MO has a positive and significant effect on IE, supporting the foundational frameworks of Narver & Slater (1990) and Kohli & Jaworski (1990), as well as Service-Dominant Logic (Vargo & Lusch, 2008). These results indicate that organizations emphasizing customer understanding, competitor awareness, and interfunctional coordination are better positioned to develop innovations aligned with market needs. In service-oriented industries such as healthcare, a strong market orientation facilitates continuous service innovation and technological development, thereby strengthening long-term competitiveness. Moreover, Innovation Excellence (IE) had a positive and significant impact on Business Performance (BP), consistent with Schumpeterian innovation theory (Schumpeter, 1934) and Dynamic Capabilities Theory (Teece, 2018). This finding aligns with recent empirical studies demonstrating that innovation capability enhances organizational resilience, efficiency, and performance outcomes (Garrido-Moreno et al., 2024; Paovangsa et al., 2025). In the healthcare context, innovation—particularly service and digital innovation—plays a crucial role in improving service quality, patient satisfaction, and organizational sustainability.

The results further reveal that Competitive Intensity (CI) significantly moderates the relationship between IE and BP, indicating that the performance benefits of innovation are more pronounced under intense competition. This finding supports Porter's (1990) theory of competitive advantage and Dynamic Capabilities Theory, which emphasize innovation as a key mechanism for strategic adaptation. Consistent with prior studies (Ali et al., 2023; Garrido-Moreno et al., 2024; Paovangsa et al., 2025), the results suggest that competition motivates organizations to deploy innovation resources more effectively to sustain performance advantages. In Thailand's highly competitive healthcare market, innovation has thus become a strategic necessity rather than an optional initiative.

Finally, the findings indicate that both TL and MO exert indirect effects on BP through IE, underscoring the central role of innovation as a mediating mechanism linking leadership and market orientation to organizational performance. These results reinforce Dynamic Capabilities Theory by demonstrating that leadership and market-sensing capabilities enhance performance primarily by enabling the generation and leverage of innovation. Collectively, the findings highlight the importance of aligning leadership, market orientation, and innovation strategies to achieve sustainable competitive advantage in private hospitals.

Limitations and Future Research

Despite its contributions, this study has several limitations. First, the cross-sectional design limits causal inference; future research could employ longitudinal approaches to capture dynamic relationships over time. Second, reliance on self-reported data may introduce perceptual bias, suggesting the need for objective performance indicators or multi-source data in future studies. Third, the focus on private hospitals in Thailand may limit generalizability. Future research could extend the model to public healthcare organizations or conduct cross-country comparisons to validate further and refine the proposed theoretical framework.

Recommendations

1) **Develop Transformational Leadership:** The findings confirm that TL directly and indirectly influences both Innovation Excellence (IE) and Business Performance (BP). Therefore, hospital administrators should strengthen transformational leadership competencies—such as

visionary thinking, inspirational communication, and the stimulation of creativity—to foster a continuous learning and innovation-oriented environment.

Foster a Market-Oriented Culture:

Since Market Orientation (MO) significantly affects IE and BP, organizations should establish systematic mechanisms for the collection, analysis, and dissemination of market data and embed values that emphasize patient-centeredness and competitive awareness. This will enable employees to adapt quickly and develop innovations that meet dynamic market demands.

2) Position Innovation as a Core Strategy: Given the strong direct impact of IE on BP, hospitals should institutionalize innovation by establishing a dedicated Innovation Unit to promote initiatives such as digital health technologies, online patient monitoring systems, and medical service innovations, thereby enhancing long-term quality and business efficiency.

3) Manage Competition Strategically: Because Competitive Intensity (CI) moderates the IE-BP relationship, organizations should continuously monitor market competition and adjust innovation strategies accordingly. Leveraging innovation-based differentiation will help sustain competitive advantage under dynamic industry conditions.

Policy Implications

1) Government agencies, such as the Ministry of Public Health, should support healthcare service innovation through research funding or tax incentives to encourage private hospitals to invest in new technologies and innovative practices.

2) In addition, policymakers should promote the establishment of Health Innovation Networks linking hospitals, universities, and the private sector to exchange knowledge, share best practices, and accelerate healthcare innovation nationwide.

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