








“Practicing stakeholder partnership in Indonesia’s primary clinic sector: Managing networking capabilities, collaborative engagement, and the healthcare ecosystems”

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PRACTICING STAKEHOLDER PARTNERSHIP IN INDONESIA'S PRIMARY CLINIC SECTOR: MANAGING NETWORKING CAPABILITIES, COLLABORATIVE ENGAGEMENT, AND THE HEALTHCARE ECOSYSTEMS

Abstract

This study investigates how networking capabilities shape collaborative engagement, healthcare ecosystem development, and stakeholder partnerships among local primary clinics in Indonesia, a sector facing persistent resource and connectivity constraints. Using a quantitative survey of 370 clinic managers across the archipelago, we applied partial least squares structural equation modelling (PLS-SEM) to test the hypothesized relationships. The findings reveal that networking capabilities significantly enhance collaborative engagement ($\beta = 0.727, p < 0.001$), strengthen the healthcare ecosystem ($\beta = 0.677, p < 0.001$), and improve stakeholder partnership effectiveness ($\beta = 0.296, p < 0.001$). Both collaborative engagement and healthcare ecosystem quality further contribute positively to partnership outcomes, with the model explaining 58.7% of the variance. The results conclude that primary clinics with stronger networking capabilities are more likely to integrate into broader healthcare ecosystems and build effective, trust-based stakeholder partnerships. In practical terms, this study highlights the importance of clinic managers investing in relationship-building, multisectoral collaboration, and knowledge-sharing platforms, while policymakers are encouraged to support these efforts through regulations and incentives that connect clinics to wider healthcare networks.

Keywords

stakeholder partnership, networking capabilities, collaborative engagement, interorganizational theory

JEL Classification

L14, L26, L32, M31, O15

INTRODUCTION

Indonesia, the most populous country in Southeast Asia with over 280 million people, relies heavily on privately owned clinics, which account for approximately 99% of the national healthcare providers. However, these clinics are unevenly distributed, with more than half located in Java, leaving many remote regions underserved (The Ravenry, 2024). Limited access to resources, poor connectivity, and underdeveloped stakeholder networks in these areas lead to disparities in service quality and reduced healthcare access (Solikha et al., 2025).

The Indonesian government has introduced policies to improve access to healthcare, such as the 2016 initiative to expand services nationwide. However, multisectoral participation remains limited, with only 35% of projects involving diverse stakeholders, and government intervention in fostering public-private partnerships has

been inadequate (The Ravenry, 2024). Compounding the challenge, the sector has experienced rapid growth, with corporate and primary patient numbers increasing by over 50% since 2021 and annual sector growth rates of 11% in Java and 5% nationwide.

In many countries, integrating primary healthcare providers into national health systems has improved service coverage, coordination, and innovation. A recent example from Ukraine, where four EU-funded modular clinics were incorporated into the National Health System (WHO Press, 2025), is cited not as the study's focus but as a well-documented case of integration under resource-constrained conditions relevant to Indonesia. Similar efforts in India, Vietnam, and the Philippines show that successful integration depends heavily on strong networking capabilities. In Indonesia, limited network capabilities and weak cross-sector collaboration continue to hinder primary clinics' participation in large-scale initiatives, resulting in fragmented service delivery.

Theoretical perspectives, particularly inter-organizational theory, emphasize that organizations in resource-constrained environments must rely on strategic alliances to overcome structural barriers (Bryson et al., 2022). Networking capabilities, defined as the ability to identify, develop, and sustain beneficial relationships, are critical in enabling organizations to access external knowledge, enhance operational efficiency, and build legitimacy (Neumann & Laimer, 2019). In the healthcare sector, these capabilities can translate into better patient referral systems, improved supply chain coordination, and more effective policy advocacy.

Despite its importance, the development of networking capabilities among Indonesian primary clinics remains underexplored in both policy and academic discourse. This commission is significant because primary clinics often serve as the first point of contact for patients, especially in semi-urban and rural areas, where timely access to care can have critical outcomes. Without understanding how these clinics can strengthen their networks and collaborative practices, healthcare policy risks leaving a large segment of the provider base underutilized.

1. LITERATURE REVIEW

The study in the interorganizational theory underscores the importance of integrating networking capabilities into business strategies, especially in the healthcare sector, to facilitate collaboration and partnerships with competitors (Neumann & Laimer, 2019). Research on interorganizational theory in private clinics in Indonesia remains limited in fully elucidating the complex dynamics of organizational networks and partnerships, and it often fails to account for contextual factors that significantly shape these relationships. Accordingly, it is necessary to develop a more comprehensive understanding of interorganizational relationships across the healthcare sector (van der Schors et al., 2021). Further investigation is necessary to clarify the function of collaborative engagement (Schruijer, 2020). Despite this importance, existing studies on healthcare partnerships primarily focus on public hospitals or international settings, leaving the primary clinic sector,

particularly in Indonesia, substantially under-researched (Solikha et al., 2025). In the last five years, less than 4% of Scopus-indexed studies on corporate or healthcare partnerships have addressed primary clinics, and even fewer have explored these relationships through the lens of interorganizational theory. This gap is critical, as it limits understanding of how primary clinics can leverage networking capabilities to strengthen collaborative engagement and build resilient healthcare ecosystems that support sustainable stakeholder partnerships.

In line with the interorganizational theory presented above, this study emphasizes that the lack of encouragement for strategic networking capabilities can hinder stakeholders' partnerships within the healthcare ecosystem. The one-way cause-and-effect relationship fosters the networking capabilities of clinical resources, creating the potential for broader connectivity with various stakeholders and enhancing partnerships (Sturmberg &

Marcum, 2023). Promoting resource networking capabilities will help marketing activities achieve appropriate value across all organizational partnership relationships by enabling the acquisition of information (Zhang & Du, 2019). To achieve partnership effectiveness, collaboration is needed, with the capability to produce high-level formulations and to engage partners in decision-making. This will create a more positive network strength formed by complementing resources with lower power (Robson et al., 2019). Network relationships are often insufficient due to a lack of sustainability in network capability. In a multidimensional concept, collaborative engagement involves component communication and bridging structural relationships in partnership (Ben Amara & Chen, 2020). Therefore, organization plays a significant role in promoting the resource network capability to achieve partnership effectiveness through the potential inclusion of stakeholder organizations in collaborative dynamics for more successful partnerships (Ulibarri & Scott, 2017).

Local primary clinics must have the organizational capacity to build networks by developing indicators of positive relationships responsive to environmental changes (relationally responsive) and customer demands (Nwankwo & Gbadamosi, 2010). This will enhance positive planning and managing partnership networks (relational partner plan) to manage supply chains through communication relationship capabilities with suppliers (Shin et al., 2019). Furthermore, there is a need to establish organizational capacity to develop business relationship plans (relational cooperation plans) with competitors based on awareness in a dynamically changing environment (Neumann & Laimer, 2019). Resource capabilities help obtain early information about new partners or provide quick access (Walters & Helman, 2020). Networking capabilities and resources enable the identification of information on potential partner targets and open relationships (open access) within the social environment of reputable stakeholders, based on reliability (Gulati & Sytch, 2007).

Stakeholder partnerships are associated with various conflicts of interest to achieve effectiveness (Bahadorestani et al., 2020). Stakeholder partnership decisions will be affected by conflicts of interest if they are not managed in a structured way

(Ali & Haapasalo, 2023). It encourages positive relational changes in partnerships, including shifts in attitudes, behaviors, and outputs (Castañer & Oliveira, 2020). Therefore, the concept of collaboration must be examined more closely, particularly when individuals have different interests, and the balance of power is unequal (Getha-Taylor et al., 2019). Managerial engagement in collaborative projects can help mitigate these conflicts (Reinartz & Berkmann, 2018). Through active collaborative engagement and cohesion in healthcare partnerships, organizations can improve efficiency, innovation, and long-term growth (Quarshie & Leuschner, 2020).

Sustainability of partnership includes interaction, evaluated through collaborative engagement and the measurement of the partnership network with other organizations (Kumar et al., 2020). Evaluating collaborative engagement involves assessing how communication, trust, respect, and interaction operate as core relational constructs that reinforce interfirm collaboration and facilitate the development of a more integrated global healthcare ecosystem (Karam et al., 2018). Synergistic stakeholder collaboration that advocates for commissions and values facilitates the inclusion of additional parties (Dragomir & Foris, 2022). It grows from organizational agreements that can form effective communication (Barker Scott & Manning, 2022). Intensive communication fosters unity among management, underscoring the importance of mutual understanding and rapid information sharing (Berardo et al., 2014). Trust, commitment, and satisfaction serve as key indicators of successful communication and influence the effectiveness of collaborative mechanisms (Vivek et al., 2022). The longevity and effectiveness of relationships are evaluated by the ability to strengthen collaborative engagement in fulfilling agreements in long-term project cooperation, maintaining trust, commitment, integrity, and empathizing with the roles of both parties (Kotler et al., 2023).

However, the lack of attention will become a barrier to communication and coordination, undermining the effectiveness of the partnership (Zarei & Maleki, 2019). In Indonesia, despite geographical constraints and limited capacity of local primary clinics, sustainability and enhanced

corporate value for stakeholders can be achieved through inter-organizational cooperation efforts. These include sharing information and resources, unifying goals, creating new knowledge, and collaborating through communication, which enables partnership to generate new value (Carlini et al., 2023). Enhancing stakeholder partnerships by fostering networking capabilities for organizations with small and medium-sized enterprises (SMEs) is similar to the local primary clinic size in Indonesia, which has an impact on competitive advantage and facilitates expansion into foreign markets (Giordino et al., 2024).

The healthcare ecosystem can be conceptualized as a distinct system characterized by autonomy and adaptability, driven by the need to integrate resources among diverse business actors (Ng & Vargo, 2018). The presence of such an ecosystem creates opportunities for stakeholders to integrate services, leading to improved outcomes and more affordable access to care (Carlton, 2019). Collaboration within this ecosystem further accelerates information exchange and provides timely market insights that support managerial and marketing decision-making (Alexiev et al., 2016). As a central hub for information and shared insights, the healthcare ecosystem also increases stakeholder engagement and supports collaborative efforts to meet evolving service needs, thereby contributing to the achievement of effective and efficient partnership goals (Gambarov et al., 2017). Inter-organizational partnerships within this ecosystem facilitate risk-sharing across relational stages and enable joint knowledge exchange, thereby strengthening collaborative engagement among partners (Casidy & Nyadzayo, 2019). In line with this, Maghsoudi et al. (2020) emphasize that networking capabilities serve as a critical enabler for healthcare organizations to enhance social sustainability within the broader healthcare ecosystem.

The healthcare ecosystem is measured by the degree to which healthcare services are relied upon. This is reflected in the network density of relationships among organizations within the ecosystem (Secundo et al., 2019). The establishment of a healthcare service ecosystem is illustrated by the concentration of value coordination among stakeholders linked to all entities. An enhanced

medical service can promote the establishment of networked communication among participants, clarifying their roles and positioning (Wu et al., 2019). Furthermore, stakeholders have a clearly defined role with the capacities in collaboration and service provision according to medical needs (Kamassi et al., 2021).

The partnership of primary clinics in this study plays a role in providing healthcare services to corporations and the public, requiring synergistic collaboration within a strong, adaptive health ecosystem (Kim et al., 2023). Synergy in ecosystem mobility will foster stakeholders' loyalty and enhance partnership collaboration (Casidy & Nyadzayo, 2019). To support the dynamic system, government policies are needed to ensure the stability of supply mobility (Li & Garnsey, 2014), thereby providing a conducive business environment that enhances partnership loyalty among business actors (Zaidi et al., 2023). The quality of service for stakeholders is enhanced by a focus on the perception of the service process, both in terms of speed and time (Zarei & Maleki, 2019). Furthermore, the role of service is considered capable of mediating through exploitative and explorative learning within the healthcare ecosystem. In a dynamic healthcare ecosystem where issues are becoming more complex, partnership actors need to work together to leverage ambidexterity processes to exploit knowledge and information and react quickly to changes in the business environment (Pregmark et al., 2023). This enhances cooperation between organizations in partnership as an alternative path for interorganizational learning (Schildt et al., 2005). This is essential for creating social capital value for people, thereby strengthening the long-term relationship value between organizations (He et al., 2022).

An effective partnership is a business model for collaborating to achieve common goals, because organizations do not have all the resources needed to succeed independently (Gudergan et al., 2012). Therefore, organizations collaborate with one another, and the effectiveness of this partnership depends on the type of policies agreed upon. In this context, Fraga and Bataglia (2022) highlight that well-designed policies promote collaboration by facilitating joint efforts among organizations to develop and deliver products or services.

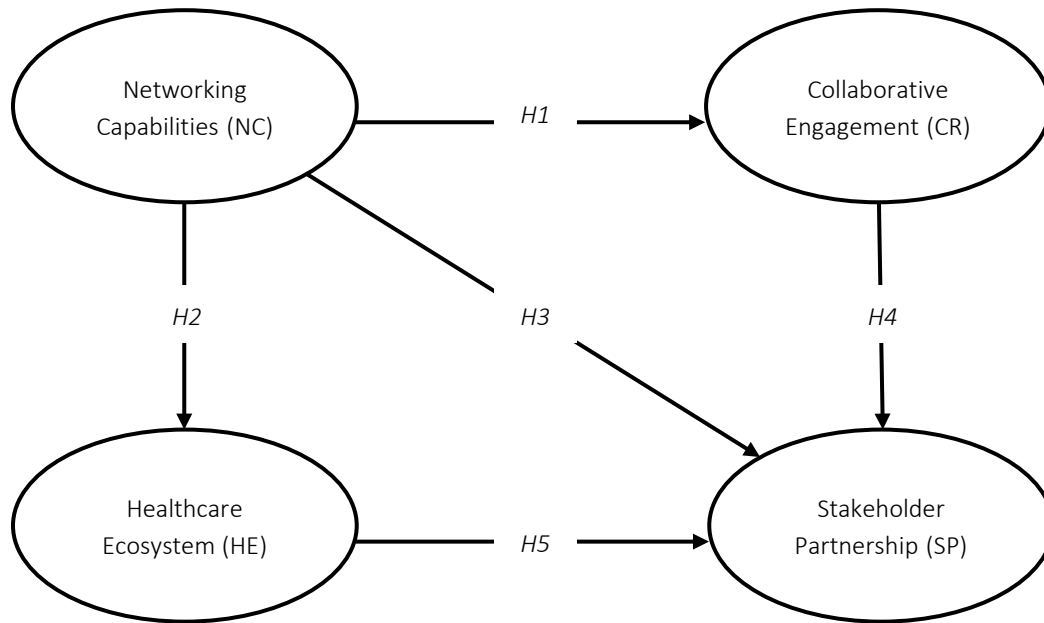


Figure 1. Study framework

Collaborative engagement influences effectiveness, thereby creating value for stakeholders' partnership (Vivek et al., 2022).

Indicator measurements first include policies, infrastructure, collaboration rules (Nezami et al., 2024), and objective agreement (Babiak, 2009). Second is the presence of education monitors (Leach et al., 2002); practice evaluation stakeholder alliances are stimulated by mutual learning of socially robust knowledge (van Drooge & Spaapen, 2022). Third is stakeholders' accountability (Hall, 2018). Fourth is the cost-efficiency effect in a buyer-supplier partnership (Yang et al., 2018), with integrated roles and shared resources, and clear decision-making, which ensures the greatest potential for synergy in the partnership (Holt & Aveling, 2023). Fifth, the inclusion partnership enables targeted collaboration (Gudergan et al., 2012) and efficiency based on a system target approach (Voronina & Steksova, 2020). Sixth, commission or profit-sharing incentives for stakeholders (Dragomir & Foris, 2022), particularly for internal stakeholders, are outcomes of efforts (Gudergan et al., 2012) and reduce conflict in project partnership (Fakhfakh & FitzRoy, 2024). Lastly, social income delivering public services is perceived value (Best et al., 2019). This value is created when organizations align their activities with broader healthcare objectives (Vivek et al., 2022), build effective partnerships with multiple stake-

holders, and involve key partners throughout the project lifecycle to ensure the collaboration has a real impact on the community of healthcare ecosystem (Allen et al., 2024).

The efficacy of stakeholder partnerships within the healthcare ecosystem depends on organizations capacity to strengthen relational mechanisms, foster collaborative engagement with stakeholders, and leverage shared resources through robust networking. Consequently, a comprehensive analysis is imperative to elucidate the operational dynamics of networking capabilities in Indonesian primary healthcare clinics. Therefore, there are two aims of this study: first, to analyse the influence of networking capabilities on collaborative engagement, the healthcare ecosystem, and stakeholder partnerships; and second, to assess whether collaborative engagement and the healthcare ecosystem function as mechanisms that strengthen the effectiveness of stakeholder partnerships.

Based on the literature review, the hypotheses of this study are formulated as follows:

- H1: Networking capabilities have a positive impact on collaborative engagement.*
- H2: Networking capabilities have a positive impact on the healthcare ecosystem.*

- H3: *Networking capabilities have a positive impact on stakeholder partnerships.*
- H4: *Collaborative engagement has a positive impact on stakeholder partnership.*
- H5: *Healthcare ecosystems have a positive impact on stakeholder partnerships.*

2. METHODS

This study used an associative quantitative method to analyze the relationships among variables in the research model (Figure 1). For data collection, a closed online survey was conducted for three months, from July to September 2024, via WhatsApp Groups, email, telephone, the official marketing number, and the social media official accounts of the primary clinics. These included heads of primary clinics in various regions of the Indonesian archipelago. Currently, the population of Indonesian local primary clinics in Badan Pusat Statistik, Indonesia, in 2023 is 9,210, including those in Java and outside Java (e.g., Sumatra, Kalimantan, Sulawesi, and Papua). Research findings for 370 local primary clinics were obtained across Indonesia.

The questionnaire was anonymous and included informed consent. The statement letter stated that the answers were confidential and used solely for study purposes, and that the respondent consented to the information being processed. Therefore, respondents were encouraged to feel safe in providing honest feedback and reducing survey data bias. The study instrumented a series of questionnaires to assess a range of variables (Boumezzrag & Liu, 2023), including network capabilities, collaborative engagement, healthcare ecosystem, and stakeholder partnerships (Appendix A). All constructs were measured using a 5-point Likert scale with a range of strongly disagree (1) to strongly agree (5), which was then measured for validity.

Survey questions were designed to capture responses on this scale to facilitate the measurement of attitudes, perceptions, or opinions toward specific statements (Joshi et al., 2015).

3. RESULTS

The validity and reliability of the data were confirmed through statistical tests, including the variance inflation factor (VIF) (Hair et al., 2020), which indicated that the data were free of bias. To ensure the validity of the data and address common method bias, statistical analyses were conducted to validate the measurement models (Kock et al., 2021). Common method bias (CMB) can be addressed by measuring a random variable score using full collinearity. CMB detection and control are considered effective when the data show variance inflation factor (VIF) values of < 3.3 and < 5.0 , showing the absence of bias.

According to Table 1, CMB shows VIF values below 3.3 and 5.0, confirming that the data in this study are bias-free and can be continued in the next analysis. Moreover, the study model was measured using PLS SEM version 4, following Henseler et al. (2015), to evaluate the outer and inner models. This includes evaluating convergence validity, discrimination, average variance extracted (AVE), composite reliability (CR), and collinearity (Hair et al., 2020). The indicator is declared valid when there is an outer loading > 0.7 and $AVE > 0.5$.

In Table 2, indicators show outer loading values > 0.70 , $VIF < 5$, and $AVE 0.56 < 5.09-0.646$. These results show that convergent validity is achieved for each construct. These values indicate that each construct is measured reliably, ensuring that the indicators used to capture networking capabilities, collaborative engagement, healthcare ecosystem, and stakeholder partnership are both conceptually sound and empirically robust. In practical terms, this means that the survey items consistently reflect

Table 1. CMB

Construct	VIF	Cut off	Decision
LV scores – Collaborative Engagement	2.512	<3.3 AND <5.5	Fulfilled
LV scores – Healthcare Ecosystem	2.258	<3.3 AND <5.5	Fulfilled
LV scores – Network Capabilities	2.724	<3.3 AND <5.5	Fulfilled
LV scores – Stakeholder Partnership	2.421	<3.3 AND <5.5	Fulfilled

the intended dimensions of partnership effectiveness in the Indonesian primary clinic context. Every item measured in each construct is reliable, with composite reliability (CR) values ranging from 0.832 to 0.909, which are within the minimum standard of CR 0.70 > 0.95. Consequently, the measurement model is confirmed to be both valid and reliable.

Table 2. Outer loading validity value

Variable	Item	VIF	Loading Factor	AVE	CR
Collaborative Engagement	CE1	1.651	0.781	0.646	0.832
	CE2	1.971	0.864		
	CE3	1.806	0.813		
	CE4	1.588	0.752		
Healthcare Ecosystem	HE1	1.529	0.707	0.569	0.852
	HE2	1.679	0.720		
	HE3	1.646	0.744		
	HE4	2.222	0.823		
	HE5	1.749	0.769		
	HE6	1.988	0.757		
Network Capabilities	NC1	1.560	0.728	0.606	0.840
	NC2	1.590	0.749		
	NC3	1.712	0.777		
	NC4	2.082	0.832		
	NC5	1.876	0.802		
Stakeholder Partnership	SP1	1.760	0.745	0.630	0.909
	SP2	1.688	0.705		
	SP3	1.913	0.762		
	SP4	2.188	0.795		
	SP5	2.359	0.819		
	SP6	2.643	0.855		
	SP7	2.967	0.865		

As presented in Table 3, the respondents' data were analyzed demographically by age group, gender, position type, educational level, and location within the Indonesian archipelago.

Table 3. Respondent demographics

Demographics	Category	Frequency	%
Age Range	18 < 25 years	5	1.35
	25 ≤ 40 years	338	91.35
	41 ≤ 59 years	27	7.30
Gender	Female	232	63
	Male	138	37
Type of Position	CEO/ Owner	6	2
	Director	18	5
	Managerial Operation	131	35
	Managerial Marketing	186	50
	Managerial Partnership	29	8
Educational Degree	Bachelor's degree (S1)	326	88
	Master's degree (S2)	37	10
	Specialist	7	2
Local Private Clinic Location	Jawa*	162	44
	Outside Jawa**	208	56

Demographically, the majority were between 25 ≤ 40 years old (91%), female (63%), with a marketing managerial position (53%), and an educational degree of S1 (88%). In terms of regional distribution, 162 (44%) respondents were from private clinics located in Jakarta, Banten, West Java, Central Java, and East Java. Meanwhile, the remaining 208 (56%) were from outside Java, including Aceh, Padang, Palembang, Medan, Kepulauan Riau, Bengkulu, Lampung, Jambi, Kepulauan Bangka Belitung, Pontianak, Banjarmasin, Samarinda, Manado, Makasar, Maluku, Nusa Tenggara Barat (NTB), Nusa Tenggara Timur (NTT), Bali, Papua, and West Papua.

The results of the discriminant validity test based on HTMT indicate a robust relationship between the model construct and the correlation value is less than 0.9, as shown in Table 4.

PLS-4 software was used to test the hypotheses, using a one-tailed test at a 5% significance level. According to Hair (2014) in PLS-SEM analysis at 5%, the hypothesis is supported when the t-value is greater than 1.645 or the p-value is less than 0.05. This shows rejection of the null hypothesis (H₀) in favor of the alternative (H₁). This shows that the independent variable has a significant impact on the dependent variable (+) when the path coefficient is positive, or (-) if it is negative. PLS-SEM results show the structural (inner) model, with additional information available in Table 5.

For hypothesis 1, Table 5 shows a positive β (coefficient path) value score of 0.727 with a t-value of 18.086 > 1.645 and a p-value score of 0.001 < 0.05. Therefore, using a 5% significance level, H1 is supported. Next, Hypothesis 2 is supported, as indicated by a coefficient score of 0.677, a t-value of 15.529, and a p-value of 0.001. Further, Hypothesis 3 is supported by a positive coefficient of 0.296, with a t-value of 3.823 and a p-value of 0.001. For Hypotheses 4 and 5, the coefficient value is 0.265, t-value 3.713, and p-value 0.001, and t-value 5.487 and p-value 0.001, respectively. Beyond statistical significance, these results suggest that clinics with stronger networking capabilities are more likely to engage in sustained collaboration, integrate into broader healthcare ecosystems, and form effective partnerships with stakeholders. Similarly, both collaborative engagement and a well-structured

Table 4. Discriminant validity test based on HTMT

Variable	Collaborative Engagement	Healthcare Ecosystem	Network Capabilities	Stakeholder Partnership
Collaborative Engagement	–			
Healthcare Ecosystem	0.768	–		
Network Capabilities	0.868	0.800	–	
Stakeholder Partnership	0.772	0.763	0.788	–

Table 5. Hypotheses results

Path	STD	STDEV	T-value	P values
H1. Network Capabilities → Collaborative Engagement	0.727	0.040	18.086	<0.001*
H2. Network Capabilities → Healthcare Ecosystem	0.677	0.044	15.529	<0.001*
H3. Network Capabilities → Stakeholder Partnership	0.296	0.077	3.823	<0.001*
H4. Collaborative Engagement → Stakeholder Partnership	0.265	0.071	3.713	<0.001*
H5. Healthcare Ecosystem → Stakeholder Partnership	0.302	0.055	5.487	<0.001*

Note: *Significant at a rate of $\alpha = 5\%$.

healthcare ecosystem contribute meaningfully to the success and longevity of these partnerships. These results show that both collaborative engagement and healthcare ecosystem significantly contribute to the effectiveness of stakeholder partnerships.

The determination coefficient (R^2) measures the exogenous variable that explains the variance of the endogenous variable. R^2 ranges from 0 to 1, where values nearer to 1 show that the independent variables are highly effective in predicting variations in the dependent variable. Meanwhile, values closer to 0 suggest a limited explanatory ability of the independent variables to explain the variability in the dependent variable. A higher R^2 shows that more of the changes in the outcome are explained by the predictors. R^2 of 0.67 or higher is strong effect, while 0.33 to 0.67 denotes moderate, and 0.19 to 0.33 shows weak effect.

According to R^2 values in Table 6, the network capabilities' impact on healthcare ecosystem is 45.8%, while the remaining 54.2% is influenced by other factors outside the model. Network capabilities impact collaborative engagement with

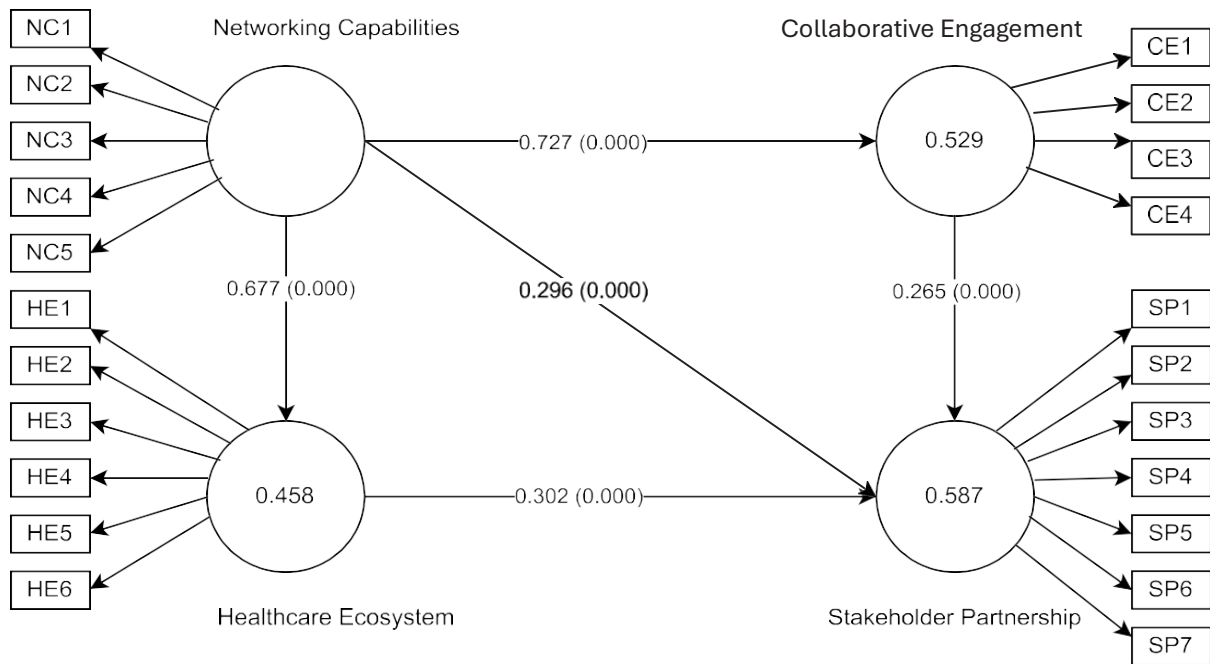
52.9% and the remaining 47.1% is influenced by other factors outside the model. In line with the results, network capabilities, collaborative engagement, and healthcare ecosystem simultaneously affected the effectiveness of stakeholder partnership by 58.7%, while the remaining 41.3% was influenced by external factors not captured in the model (Figure 2).

From a practical perspective, the moderate-to-strong R^2 values indicate that the model explains a substantial portion of the variation in stakeholder partnership effectiveness but also leaves room for other influential factors such as regulatory policy, competitive intensity, or technological adoption. This highlights potential avenues for future research and managerial focus.

The predictive power for two benchmarks, AI and LM, is compared in Table 7. The PLS loss for both benchmarks is 0.147, but the IA loss varies, being 0.204 for AI and 0.149 for LM. AI average loss difference (-0.057) is significantly greater than LM (-0.003). Both AI and LM exhibit highly significant p-values (0.000 for AI and 0.001 for LM), indicating statistically significant differences in

Table 6. R^2 and F2

Path	R-squared	F-squared	Decision
Network Capabilities → Collaborative Engagement	0.529	1.122	Strong
Network Capabilities → Healthcare Ecosystem	0.458	0.845	Strong
Network Capabilities → Stakeholder Partnership		0.084	Weak
Collaborative Engagement → Stakeholder Partnership	0.587	0.072	Weak
Healthcare Ecosystem → Stakeholder Partnership		0.108	Weak



Note: The Networking Capabilities construct appears empty because it is an exogenous variable without an associated R² value. In PLS-SEM, R² is only computed for endogenous constructs (Hair et al., 2014) citation already in reference list.

Figure 2. PLS-SEM results

Table 7. Predictive power (CVPAT)

Benchmark	PLS loss	IA loss	Average loss difference	t value	p value
Overall (Benchmark AI)	0.147	0.204	-0.057	4.505	0.000
Overall (Benchmark LM)	0.147	0.149	-0.003	3.234	0.001

predictive performance for both benchmarks. In practical terms, the CVPAT results confirm that the proposed model is not only statistically valid but also predictive when applied to new or unseen data. This predictive strength is critical for managers because it means the framework can reliably guide partnership strategies in clinics beyond the original sample, including those in other provinces or in similar emerging-market settings. In line with this, the t-value for AI (4.505) is greater than that for LM (3.234).

4. DISCUSSION

This paper contributes to the extant body of knowledge concerning strategic business partnerships between organizations. This objective has been achieved by offering empirical insights into the relationships among networking, collaboration, engagement, the healthcare ecosystem, and partnership management among primary clinics and stakeholders, as shown in Figure 2. According to

the hypothesis testing results, promoting networking capabilities significantly impacts stakeholders' collaborative engagement (H1). Networking skills are necessary to build successful collaboration, even partnering with competitors (Neumann & Laimer, 2019). Networks' capability would influence the stages of the interaction process, information exchange, and collaboration, crucial for strengthening partnership among stakeholders (Kujala et al., 2022). This result is in line with previous research; these abilities will help the marketing process derive the right value from inter-organizational relationships (Rzepka et al., 2024).

Due to the Indonesian context issue of primary clinics struggling with limited capacity to access networks within the healthcare service ecosystem, research results show that crucial support is needed from the government. This research corroborates previous studies demonstrating that networking capabilities play a crucial role in fortifying healthcare ecosystems (H2). These findings align with Arasti et al. (2022), who found that

longstanding deficiencies in marketing competencies and organizational capacity have hindered the development of effective networking capabilities.

The gap in local primary clinics in Indonesia can be addressed by fostering the clinics' networking capabilities, which are considered a highly important asset (Maghsoudi-Ganjeh et al., 2021) in a dynamic healthcare ecosystem. Primary clinics play a role in the relational process to gather stakeholder information (Hallo De Wolf & Toebes, 2016). Based on the results, an active method is needed that includes stakeholders in the decision-making process to establish a synergistic partnership, leading to investment in collaborative engagement partnership projects when clinics can commit, build trust, and provide standardized service satisfaction (Kwiatek et al., 2020).

Furthermore, a significant impact of networking capabilities on the effectiveness of stakeholders' partnership in Indonesian primary clinics was proved (H3). These results are consistent with previous studies, namely that networking capabilities influence stakeholders' partnership (Han et al., 2018), and within specific capabilities employed, project activities impact differential performance (Kazadi et al., 2016). In marketing, the ability to build networks is recognized as influencing the establishment of partnership relational success (Möller et al., 2020). The main objectives are to cover the shortcomings in the organization's capacity of the primary clinic to enhance partnership opportunities during the arrangement between business partners, and clarify development outcomes (Fynn et al., 2022). In response to these challenges and the complexity of the business environment in Indonesia, networking capabilities have the potential to enhance stakeholders' partnership through collaborative engagement (Basco-Carrera et al., 2020). Based on research results, robust interorganizational theory is crucial for the clinic management to explore and exploit capabilities in the current market conditions of Indonesia by creating relational channels or networks within multiple cross-sectoral organizations, which will facilitate access to potential connections with various stakeholders.

The significant impact of collaborative engagement with stakeholder partnerships (H4) will

mitigate critical conflicts arising in the partnership process (Nonet et al., 2022). The inter-organizational level can influence collaborative engagement among partners (Aaltonen et al., 2024). This result suggests determining the capacity of local clinics in B2B cooperation, as it remains an issue for healthcare business partnerships. This aligns with Madanaguli et al. (2021), as there is still a lack of research on assessing B2B relationships in mid-sized healthcare companies globally. This indicates that further research needs to continue scientific collaboration aimed at analyzing, comparing, and documenting the capacity of local primary clinic size clusters. Furthermore, the government must devise a strategy to promote the sustainability of local primary clinics in the healthcare ecosystem in Indonesia, based on their capacity clusters, through support and collaborative events between the government and primary corporations.

The significant result of the impact of the healthcare ecosystem on succession stakeholders' partnership (H5) aligns with other studies that have explored stakeholders from resource-based theory (RBT) by normativity, sustainability, and cooperation, which are increasingly becoming integral parts of the formation and maintenance of partnership within the healthcare ecosystem (Freeman et al., 2021). In this study, to address the complexity of collaborative practices in a dynamic healthcare ecosystem in this era, healthcare actors cannot change market volatility and customer expectations only from an RBT perspective. Interorganizational theory is adapted and relevant to dynamic business changes in the context of local healthcare businesses in Indonesia.

The results indicated that partnerships represent a significant opportunity, particularly given the presence of local primary clinics in Java. This dynamic contrasts with the conditions observed outside of Java. Nevertheless, the absence of branches outside Java imposes limitations on the capacity to address the needs of corporate clients. Therefore, local primary clinics outside of Java need to strengthen networking capabilities in creating synergy and broader collaborative engagement to enhance the effectiveness of stakeholders' partnership (Barker Scott & Manning, 2024). However, the obstacles to open network access should be fa-

cilitated by stakeholders, with the government as the policymaker, providing opportunities to connect with primary corporations in social value programs for people, and reaching all parts of the Indonesian archipelago.

In line with the hypotheses' results, local primary clinics are expected to understand B2B partnerships in Indonesia to engage with multisectoral

stakeholders within the healthcare ecosystem. Due to geographical challenges and capacity limitations, these are not the main obstacles in partnership. Our strategy model focused on a rare inter-organizational partnership relationship, primarily driven by the courage to leverage internal resources through multisectoral relational access, such as social health service activities or commercial engagement.

CONCLUSION

This study highlights the pivotal role of networking capabilities in shaping collaborative engagement, strengthening healthcare ecosystems, and enhancing the effectiveness of stakeholder partnerships in Indonesia's primary care sector. By demonstrating that these three dimensions collectively explain 58.7% of the variance in partnership outcomes, the findings affirm that clinics with well-developed networking capabilities are better equipped to build trust-based collaborations, integrate into wider healthcare systems, and deliver higher-quality services across geographically diverse regions. In doing so, the study extends inter-organizational theory into the under-researched domain of primary clinics in developing countries, providing empirical evidence that relational capabilities are not peripheral functions but core strategic assets. This contribution offers a transferable framework for scholars seeking to examine the effectiveness of partnerships in similarly resource-constrained and fragmented healthcare markets.

From a practical standpoint, the findings emphasize the urgent need for clinic managers to invest in relationship-building, cross-sectoral collaborations, and mechanisms for continuous knowledge exchange. Policymakers should complement these efforts by creating enabling environments that foster primary clinic partnerships, incentivize multisectoral engagement, and bridge connectivity gaps outside of Java and other underserved regions. Strengthening networking capabilities is thus not simply a managerial choice but a prerequisite for advancing equitable healthcare access and ensuring sustainable stakeholder partnerships. Future research could build on these insights by examining longitudinal developments in clinic partnerships, comparing dynamics across different healthcare providers, or exploring how technological adoption may further mediate the role of networking in healthcare ecosystems.

AUTHOR CONTRIBUTIONS

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APPENDIX A

Table A1. Indicators of the variables

Variable	Item	Indicator
Collaborative Engagement	CE1	Communication
	CE2	Trust
	CE3	Satisfaction
	CE4	Commitment
Healthcare Ecosystem	HE1	Density of stakeholders networks
	HE2	Clear roles of stakeholders
	HE3	Synergist of partnership process
	HE4	Government support
	HE5	Service quality
	HE6	Explorative and exploitative learning
Network Capabilities	NC1	Responsive
	NC2	Relation partner plan
	NC3	Relations with coopetition plan
	NC4	Speed access
	NC5	Open access
Stakeholder Partnership	SP1	Rules and policy
	SP2	Education and monitoring process
	SP3	Accountability
	SP4	Cost efficiency
	SP5	Project target
	SP6	Commission shared
	SP7	Social income