

## An Exploration of Cross-Sector Collaboration Among Thai Local Government Units During the COVID-19 Pandemic

### การศึกษาความร่วมมือข้ามภาคส่วนขององค์กรปกครองส่วนท้องถิ่นไทย ในช่วงการแพร่ระบาดของโควิด 19

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#### Abstract

This study aims to investigate the patterns of collaboration between local governments and organizations from other sectors, and to examine the relationship between organizational factors and cross-sector collaboration. The study hypothesized that there would be significant associations among these factors. A questionnaire survey was used to collect data. The samples were 59 Thai lower-tier local government units, selected by using a multi-stage sampling strategy to local government representatives from various regions in Thailand. Multiple linear regression analysis was used to evaluate the relationship between organizational characteristics and cross-sector collaboration among local government units. The study discovered a statistically significant correlation between mayor capability and cross-sector collaboration. This research highlights the vital role of mayor capability in enhancing cross-sector collaboration. In addition, it provides insights for policymakers and local government officials to develop targeted strategies in order to improve public service provision and crisis management in Thailand.

**Keywords:** Collaborative Public Sector Innovation, COVID-19 Pandemic, Cross-sectoral Collaboration, Local Administrative Organization

### บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษารูปแบบความร่วมมือระหว่างองค์กรปกครองส่วนท้องถิ่นและองค์กรจากภาคส่วนอื่น และเพื่อศึกษาความสัมพันธ์ระหว่างปัจจัยในองค์กรกับความร่วมมือข้ามภาคส่วน โดยมีสมมุติฐานว่าปัจจัยดังกล่าวมีความสัมพันธ์กับการจัดทำความร่วมมือระหว่างองค์กร งานวิจัยนี้ใช้วิธีเก็บข้อมูลด้วยแบบสอบถามกลุ่มตัวอย่าง ประกอบด้วยองค์กรปกครองส่วนท้องถิ่นชั้นล่างของไทย จำนวน 59 แห่ง โดยใช้วิธีสุ่มตัวอย่างแบบหลายขั้นตอน และใช้การวิเคราะห์การถดถอยเชิงเส้นพหุคูณเพื่อประเมินความสัมพันธ์ระหว่างคุณลักษณะขององค์กรและความร่วมมือข้ามภาคส่วนขององค์กรปกครองส่วนท้องถิ่น ผลการวิจัยพบว่า มีความสัมพันธ์ที่มีนัยสำคัญทางสถิติระหว่างความสามารถของผู้บริหารท้องถิ่นและความร่วมมือข้ามภาคส่วน งานวิจัยนี้เน้นความสำคัญของการยกระดับความสามารถของของผู้บริหารท้องถิ่นในการเสริมสร้างความร่วมมือข้ามภาคส่วน นอกจากนี้ งานวิจัยยังเสนอแนวทางสำหรับผู้กำหนดนโยบายและเจ้าหน้าที่รัฐในท้องถิ่นเพื่อพัฒนากลยุทธ์เพื่อปรับปรุงคุณภาพการให้บริการสาธารณะและการจัดการภาวะวิกฤติในประเทศไทย

**คำสำคัญ:** การแพร่ระบาดของโรคโควิด 19, ความร่วมมือข้ามภาคส่วน, นวัตกรรมภาครัฐแบบร่วมมือ, องค์กรปกครองส่วนท้องถิ่น

## Introduction

The unprecedented nature of the COVID-19 pandemic demanded unparalleled measures and responses. One salient consequence of the crisis was the urgent need for cross-sector collaboration, most notably at the local government level where the ramifications of interventions were most acutely experienced (Weiss, Hutchcroft, Hicken, & Aspinall, 2021). Faced with the pandemic's multifaceted challenges, the synergy between public, private, and non-profit sectors became indispensable, especially for swift resource mobilization, as seen in PPE manufacturing and vaccine distribution. This collaboration accelerated vaccine development, amalgamating efforts of research institutions, pharmaceutical companies, and governments. On the economic front, cooperative strategies between governments and the private sector were vital for business continuity and job preservation. A united front in public messaging, combining the might of governments, media, and tech entities, was crucial to counter misinformation. Disrupted supply chains underscored the importance of coordinated logistics to ensure essential supplies. Technological collaborations yielded tools like contact tracing, and community engagement, bolstered by non-profits and civil society, catered to the vulnerable (Mitchell, 2023). The move towards online education necessitated alliances between educational institutions, tech companies, and governments. Furthermore, global entities, such as the World Health Organization (WHO), were instrumental in galvanizing international cooperation. Cumulatively, only through such robust, cross-sectoral collaborations could the myriad challenges of COVID-19 be tackled. Notably, even prior to the pandemic, scholarly work advocated for a more integrated governance structure, emphasizing collaboration both within and across governmental levels (Lowatcharin, Crumpton, & Pacharoen, 2019).

Thailand's diverse array of local government structures makes it an exceptional case study in the Asia-Pacific region. It provides extensive insight into the various approaches taken by local administrations to manage the crisis. The pandemic has highlighted the systemic and operational challenges of providing public sector services. Local governments in Thailand have navigated these challenges in part by leveraging cross-sector collaboration, which has enabled them to augment their capacities and respond creatively to the crisis (Laochankham, Kamnuansilpa, & Lowatcharin, 2021).

Cross-sector collaboration involves collaborative initiatives and coordinated actions between the public sector, the private sector, and civil society (Bryson & Crosby, 2015; Gazley, 2015). This extensive array of actors enables a more comprehensive response to a crisis, going beyond the traditional boundaries of government service delivery. During the pandemic, the increased role of non-state actors, especially non-profit organizations and private enterprises, in the delivery of public services has challenged and redefined the boundaries of the public sector in Thailand and, arguably, globally (Biddell, Johnson, Patel, Smith, Hecht, Swann, ... & Lich, 2022; Wong, Schachter, Collins, Song, Ta, Dawadi, ... & Laurent, 2021). Moreover, the pandemic is a cry for more collaborative public sector innovations, i.e., to the innovative developments within the public sector that have been spurred by cross-sector collaboration. These innovations could

range from novel methods of delivering public services to the development of new policies or regulations that facilitate coordination and cooperation between sectors.

The context of this research is a global crisis, but its implications are considerably broader. It encourages us to reconsider the paradigms of public administration and governance that we have taken for granted, particularly during times of crisis. It introduces the notion that innovation is not a luxury or an extra, but a necessity in the deliverance of public services, especially when conventional methods fail. In addition, it emphasizes the potential advantages of decentralization in allowing local governments to develop solutions tailored to their specific contexts and challenges.

Drawing on seminal works such as Weiss, Hutchcroft, Hicken, and Aspinall, (2021) and Gazley (2015), this study builds upon the foundation that cross-sector collaboration is pivotal for addressing complex public health crises, demonstrating how diverse partnerships can lead to more resilient and adaptive public service systems. To clarify, cross-sector collaboration is defined as the cooperative efforts between government, private sector, and non-profit organizations to achieve common goals, a concept that is increasingly recognized as essential for effective governance and crisis response.

This research aims to investigate the role of cross-sector collaboration among local governments in Thailand in response to the pandemic, seeking to answer the research question: “Do local governments in Thailand collaborate with organizations from other sectors to enact policies and deliver local public services during the COVID-19 pandemic?” It contributes to both academic and policy debates regarding public sector innovation and the evolving role of local governments in today’s world of rapid change. In addition, it contributes to the discourse on crisis management by compelling a reevaluation of the current models of public service delivery and governance and the exploration of new avenues and approaches.

## **Research Objectives**

The objectives of the current study are twofold: first, to explore the patterns of collaboration between local governments and organizations from other sectors; and second, to examine the relationship between organizational factors and cross-sector collaboration.

## **Literature Review**

### **Cross-Sector Collaboration**

Cross-sector collaboration (CSC), or intersectoral collaboration (ISC), refers to a voluntary association (Forrer, Kee, & Boyer, 2014) for the provision and delivery of public services by at least two organizations affiliated in two or more sectors. These include the public, private, voluntary, and/or charitable sectors (Bryson, Crosby, & Stone, 2006), and range from the exchange of information and goodwill to the exchange of power and authority (Bryson & Crosby, 2015; Gazley, 2015).

Crosby and Bryson (2005) identified five levels of cross-sector collaboration. The lowest stratum consists of organizations with no relationships or exchanges with other entities. The

second level entails communication, which is the process by which organizations exchange information. The third level is coordination, which involves the exchange of activities and resources between organizations. Collaboration, the exchange of each organization's authority and capabilities, is the fourth level. Level five is merger, which occurs when each organization combines into a new organization to collaboratively solve problems (Crosby & Bryson, 2005).

In accordance with the concept of new public management and new public governance, provision and delivery of public services to local residents can now be accomplished in a variety of ways, including state provision, contracting out, and

ad hoc cooperation, partnership, network, independent public service provider, and private delivery (Forrer, Kee, & Boyer, 2014). This model for providing and delivering these public services is hierarchical in nature. The government is the sole provider on one end. In contrast, the private sector is the only provider on the other end. In the middle lies several approaches for cross-sector collaboration.

Gazley (2015) investigated collaboration between government and nonprofit organizations at the local level and proposed that a number of factors influence organizational executives' decision to collaborate on the delivery of public services. Depending on the administrative context, each variable's influence may be greater or lesser. At the individual level, four factors influence the propensity of organizational executives to collaborate across sectors: 1) individual characteristics, including political ideology and gender; 2) education and training; 3) environmental regulations and policies, including government incentives, possibilities to access partners, capabilities, necessity, and political affiliation; and 4) direct and indirect experiences, including the reputation of partners, results from prior partnerships, confidence in partners, volunteer experience, and interactions with other volunteers (Gazley, 2015)

In addition, Gazley (2015) suggested categorizing the examination of the factors that influence cross-sectoral collaboration into three levels: sectoral, organizational, and individual. The sectoral level focuses on structural factors that either facilitate or impede collaboration, such as governance mechanisms, resource dependencies, and public accountability. At the organizational level, consideration is given to the factors that influence collaboration with entities from other industries. Aligned missions and organizational capabilities in terms of human resources, budget, technology, and politics are among the organizational level factors. At the individual level, the focus was on the factors that influenced whether executives of one organization would collaborate with executives of other organizations to provide public services jointly. Personal factors included shared experiences and relationships, volunteerism, politics and ideology, and gender.

In the context of Thailand, Kamolvej (2012)'s local disaster management manual provided a comprehensive guide on local disaster management, focusing on the importance of preparedness, response, recovery, and mitigation strategies. The manual emphasized the critical role of local governments and communities in effectively managing disasters, leveraging both structural and non-structural approaches. The manual covered a wide range of topics, including the basic understanding of disasters, legal and regulatory frameworks, roles and responsibilities

of local government organizations, and strategies for enhancing local capabilities in disaster management.

Kamolvej (2012) reinforced the notion that effective disaster management necessitates a collaborative approach among various sectors. The manual particularly underscored the significance of local government units as frontline actors in disaster response and recovery, highlighting their pivotal role in coordinating efforts across sectors, including the public, private, and civil society. The manual's insights into building local capacities, fostering community engagement, and ensuring a proactive and integrated approach to disaster management echo the current study's emphasis on the importance of leadership, organizational characteristics, and cross-sector collaboration in enhancing public service delivery and crisis management.

Chamchong (2019) explored the patterns of collaboration among local governments in Thailand and determine the factors promoting its creation and maintenance. Chamchong (2019) found that in the country's major region, collaboration tends to be unbalanced, challenging the resource dependency theory, as councils with greater resources can end up in unfavorable partnerships with, and be dominated by, smaller councils with limited resources. This imbalance in partnerships and the hierarchical style of inter-local cooperation are driven by the dominant hierarchical cultural norms in Thailand. In this setting, larger councils are anticipated to assist the smaller, newer ones. Hence, the cultural and societal factors influencing inter-local cooperation should be incorporated into current theoretical frameworks, which have predominantly focused on legal and institutional aspects.

### Conceptual Framework

This research aims to explore the factors that influence the development of cross-sector collaboration among local governments and examine the characteristics of local governments that have implemented such collaborations in response to the COVID-19 pandemic. The authors have constructed a conceptual framework, inspired by Gazley's work (Gazley, 2015), which is illustrated in Figure 1. In this framework, the dependent variable ( $Y_1$ ) is the level of cross-sector collaboration. The independent variables include mayor capability ( $X_1$ ), the natural logarithm of population ( $X_2$ ), percentage of self-collected revenue ( $X_3$ ), and types of local government ( $X_4$ ).

The hypotheses are formulated as follows:

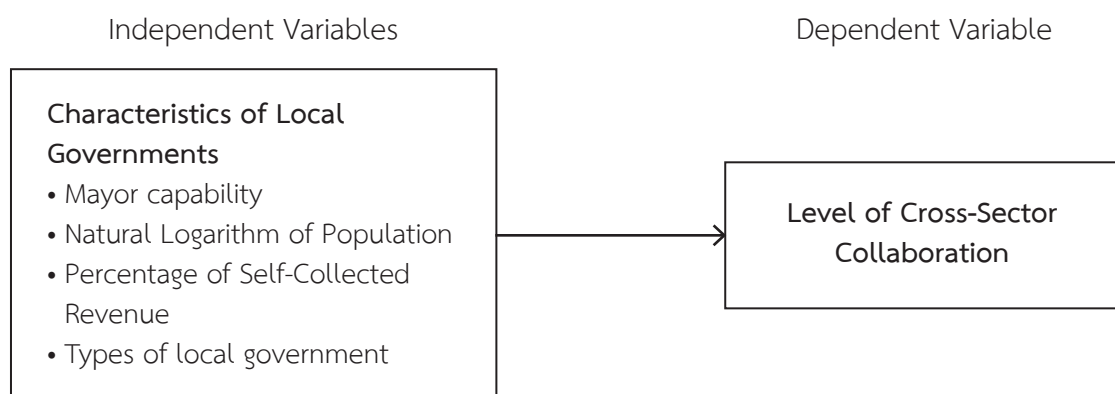


Figure 1 Conceptual Framework

The capability and leadership skills of mayors play a crucial role in driving cross-sector collaboration. Mayors with higher levels of capability may possess better communication and negotiation skills, be more adept at fostering partnerships, and have a greater ability to facilitate cooperation among different sectors. As a result, local governments led by capable mayors are more likely to engage in collaborative efforts, leading to a higher level of cross-sector collaboration.

$H_{0a}$ : There is no difference in the level of cross-sector collaboration between local governments with mayors possessing higher levels of capability and leadership skills and those with mayors of lower capability.

$H_{1a}$ : There is significant difference in the level of cross-sector collaboration between local governments with mayors possessing higher levels of capability and leadership skills and those with mayors of lower capability.

Larger populations may present more complex challenges and require a greater level of coordination and collaboration among various sectors. Local governments serving larger populations may be more inclined to establish cross-sector collaboration to address the diverse needs and interests of their constituents effectively. Additionally, a larger population often means a greater availability of resources and expertise, which can facilitate collaboration across sectors.

$H_{0b}$ : There is no difference in the level of cross-sector collaboration between local governments with larger populations and those with smaller populations.

$H_{1b}$ : There is significant difference in the level of cross-sector collaboration between local governments with larger populations and those with smaller populations.

Local governments with a higher percentage of self-collected revenue have greater financial autonomy and flexibility. They may be less reliant on external funding sources and have more control over their budget allocation. This financial independence can enable them to invest in cross-sector collaboration initiatives, allocate resources strategically, and overcome financial barriers to collaboration. Consequently, local governments with a higher percentage of self-collected revenue are more likely to exhibit a greater level of cross-sector collaboration.

$H_{0c}$ : There is no difference in the level of cross-sector collaboration between local governments with a higher percentage of self-collected revenue and those with a lower percentage.

$H_{1c}$ : There is significant difference in the level of cross-sector collaboration between local governments with a higher percentage of self-collected revenue and those with a lower percentage.

Different types of local governments may have varying administrative structures, governance mechanisms, and decision-making processes. These differences can influence the level of cross-sector collaboration that can be achieved. Certain types of local governments may have a broader scope and mandate, facilitating collaboration across multiple municipalities or counties within a region. Conversely, smaller municipal governments may have a narrower focus, potentially impacting their ability to engage in cross-sector collaboration. Therefore,



$H_{0d}$ : There is no difference in the level of cross-sector collaboration among different types of local governments (e.g., city municipality, town municipality, subdistrict municipality).

$H_{1d}$ : There is significant difference in the level of cross-sector collaboration among different types of local governments (e.g., city municipality, town municipality, subdistrict municipality).

### Research Methodology

To test the hypotheses, the authors used a quantitative research design. The population of this study is 7,772 lower-tier local governments in Thailand. Lower-tier local governments are classified into four types: 1) subdistrict administrative organizations, local government units responsible for rural areas; 2) subdistrict municipalities, responsible for semi-urban areas; 3) town municipalities, responsible for urbanized areas; and 4) city municipalities, responsible for highly urbanized areas. The authors excluded the upper-tier local governments, i.e., provincial administrative organizations (PAOs), because they have a distinct set of roles and responsibilities. The authors also excluded the Bangkok Metropolitan Administration (BMA) and the City of Pattaya, the two special types of local government, due to their exceptional characteristics.

The authors utilized data from a 2021 national survey of local governments conducted by the College of Local Administration, Khon Kaen University. The survey employed a multi-stage sampling strategy and questionnaire interviews of local government representatives from the various regions in Thailand. The total observation included in the analysis was 59 local governments. The sampling process included considerations for geographic diversity and administrative capacity. Furthermore, our data collection methods were rigorously designed to minimize biases and enhance validity, incorporating both quantitative survey techniques and qualitative interviews to comprehensively capture the nuances of cross-sector collaboration. The survey employed a questionnaire that inquired about local governments' existing policies, strategies, collaboration, challenges, and implementations concerning economic growth. Additionally, it explored local governments' interest in forming dedicated economic development units, preferred areas for development, strategies for increasing revenue, and the need for support from the central government.

The authors developed an index of cross-sector collaboration using data on categories of organizations with which local government has formed partnerships. The authors collected additional data for the independent variables, i.e., mayor capability, the natural logarithm of population, percentage of self-collected revenue, and types of local government.

The authors analyzed the data by encoding the data from the questionnaires and inputting it into the computer system, then assessing the data's validity and processing it with Statistical Package for the Social Sciences (SPSS) version 28. Additionally, the authors handled missing data through imputation methods, ensuring a comprehensive analysis that supports the reliability and validity of our findings. The local governments' general information and the level of cross-



sector collaboration were described using descriptive statistics. The authors used Multiple Linear Regression to analyze the relationships between the independent and dependent variables for inferential statistics. The multiple linear regression equation is as follows:

$$y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip} + e$$

Where  $y_i$  is the predicted value of the dependent variable,

$X_i$  are independent variables,

$\beta_0$  is the constant,

$\beta_p$  are the estimated regression coefficients,

$e$  is the error term.

(Kutner & Neter, 2004)

## Research Findings

The descriptive statistics report provides an overview of the variables used to test the hypotheses: Cross-sector collaboration, mayor's capability, the natural logarithm of population, and percentage of self-collected revenue. The results are presented in Table 1, showing the number of samples, minimum, maximum, mean, and standard deviation for each variable.

Regarding Cross-sector collaboration, the dependent variable, the mean value was found to be 4.17, indicating a lower-moderate level of cross-sector collaboration among local governments. Mayor's capability had a mean value of 4.22, suggesting a similar lower-moderate level of capability among mayors.

For the natural logarithm of population variable, the highest value observed was 5.40, while the lowest value was 3.26. The mean of the natural logarithm population was calculated as 4.36, with a standard deviation of 0.46.

In terms of the percentage of self-collected revenue, the highest value recorded was 17.31 percent, whereas the lowest value was 0.55 percent. The mean percentage of self-collected revenue was 6.97 percent, with a standard deviation of 4.21.

The G\*Power software was used to calculate the appropriate sample size. The sample of this research consisted of 59 local governments, which were classified into four categories: 15 city municipalities, representing 25.4 percent of the sample; 14 town municipalities, representing 23.7 percent; 14 subdistrict municipalities, also representing 23.7 percent; and 16 subdistrict administrative organizations, representing 27.1 percent. These categorizations are presented in Table 2.

**Table 1** Descriptive statistics for continuous variables

Variables	N	Min.	Max.	Mean	S.D.
Dependent Variable					
Cross-Sector Collaboration	59	0	10	4.17	2.71
Independent Variables					
Mayor's Capability	59	0	10	4.22	2.37
Natural Logarithm of Population	59	3.26	5.40	4.36	0.46
% of Self-Collected Revenue	59	0.55	17.31	6.97	4.21

**Table 2** Descriptive statistics for discrete variable

Variable	Frequency	Percent	Cumulative Percent
Type of Local Governments			
City Municipality	15	25.42	25.42
Town Municipality	14	23.73	49.15
Subdistrict Municipality	14	23.73	72.88
Subdistrict Administrative Organization	16	27.12	100.00
Total	59	100.00	

A multiple regression analysis was computed to determine whether the level of mayor's capability, the natural logarithm of population, self-collected revenue, and type of local governments predict the level of cross-sector collaboration in a sample of 59 respondent (N = 59).

The equation for the regression line is cross-sector collaboration =  $b_0 + b_1 \times \text{mayor's capability} + b_2 \times \text{the natural logarithm of population} + b_3 \times \text{self-collected revenue} + b_4 \times \text{type of local governments}$ . The R Square ( $R^2$ ) of .478 indicates that 47.8% of the variance in the level of cross-sector collaboration is explained by the independent variables (Table 3).

The results of ANOVA were significant,  $F(6, 52) = 7.931$ ,  $p = <.001$  (Table 4). Therefore, we must reject the null hypothesis that the slope of our regression line is zero. The level of mayor's capability, the natural logarithm of population, self-collected revenue, and type of local governments significantly predict the level of cross-sector collaboration. Regression analysis to predict the relationship between the level of mayor's capability and cross-sector collaboration revealed a 99% significant positive correlation ( $p\text{-value} = <.001$ ) between the level of mayor's capability and cross-sector collaboration (Table 5). The standardized coefficient of .699 indicates that if the level of mayor's capability increases for one unit, the level of cross-sector collaboration will increase by .699 units. The statistically significant relationship rejects the null hypothesis and accept the alternative hypothesis ( $H_{1a}$ ) that: There is significant difference in the level of cross-sector collaboration between local governments with mayors possessing higher levels of capability and leadership skills and those with mayors of lower capability.

**Table 3** Model summary of the multiple regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.691 <sup>a</sup>	.48	.42	2.06

a. Predictors: (Constant), Subdistrict Municipality, Mayor's Capability, % of Self-Collected Revenue, Town Municipality, The Natural Logarithm of Population, City Municipality

**Table 4** ANOVA<sup>a</sup> of the multiple regression analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	202.75	6	33.79	7.93	.001 <sup>b</sup>
Residual	221.56	52	4.26		
Total	424.31	58			

a. Dependent Variable: Cross-Sector Collaboration

b. Predictors: (Constant), Subdistrict Municipality, Mayor's Capability, % of Self-Collected Revenue, Town Municipality, The Natural Logarithm of Population, City Municipality

**Table 5** Explaining Cross-Sector Collaboration

	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	Std. Error	Beta		
(Constant)	0.84	4.14		0.20	.839
Mayor's Capability	0.17	0.03	0.70	5.71*	<.001
Natural Logarithm of Population	-0.33	1.07	-0.06	-0.31	.760
% of Self-Collected Revenue	-0.66	0.09	-0.10	-0.73	.470
City Municipality	0.88	1.20	0.14	0.71	.483
Town Municipality	0.20	1.00	0.03	0.20	.845
Subdistrict Municipality	0.19	0.80	0.03	0.24	.812

Note: a. Dependent Variable: Cross-Sector Collaboration

\* Significant at the .01 level

## Discussion

The regression analysis conducted to examine the factors influencing the level of cross-sector collaboration revealed interesting findings. Among the independent variables considered in the study, only mayor's capability demonstrated a statistically significant relationship with the level of cross-sector collaboration. This finding suggests that the capability and leadership skills of mayors play a crucial role in driving collaborative efforts across sectors within local governments.

The statistically significant relationship between mayor's capability and cross-sector collaboration aligns with previous research highlighting the importance of effective leadership in fostering collaboration (e.g., Bauer, AbouAssi, & Johnston, 2022; Gazley, 2015; Crosby & Bryson, 2010). Mayors with higher levels of capability may possess better communication and negotiation skills, be more adept at building partnerships, and have a greater ability to facilitate cooperation among different sectors. As a result, they are more likely to promote and initiate cross-sector collaboration within their local governments.

A mayor's capability is instrumental in fostering cross-sector collaboration during crises like pandemics. Their clear leadership and vision can unify diverse stakeholders towards shared objectives. With their unique convening power, mayors can amalgamate resources and expertise from various sectors, ensuring cohesive action. Their in-depth local knowledge aids in tailoring interventions to specific community needs, while their ability to build trust facilitates open communication and cooperation (Page, 2010). Decision-making, an essential trait in crises, ensures that collaborative efforts are both timely and impactful. A mayor's role in resource allocation can maximize the effectiveness of joint endeavors, and their adept communication skills keep all partners aligned and informed. Additionally, they can deftly mediate conflicts that arise from multi-sector collaborations, maintaining focus and productivity (Follador, Tremblay-Racicot, Duarte, & Carrier, 2021). By championing policies that encourage collaboration and displaying adaptability to changing circumstances, capable mayors create an environment where collective action thrives. In essence, a mayor's competence can significantly influence the success of collaborative responses to complex challenges, making it a key factor in pandemic management.

However, it is important to acknowledge that the other independent variables, namely the natural logarithm of population, percentage of self-collected revenue, and types of local government, did not show a statistically significant relationship with cross-sector collaboration. This implies that factors beyond the scope of this study might influence the collaborative efforts among local governments.

Possible factors that warrant further investigation could include organizational culture, stakeholder engagement strategies, resource availability, and contextual factors specific to each local government. Understanding these additional factors could provide a more comprehensive understanding of the determinants of cross-sector collaboration within local governments.

## **Conclusion and Recommendations**

The findings highlight the critical role of mayor's capability in fostering cross-sector collaboration. Recognizing the importance of effective leadership and providing support to enhance mayoral capabilities can be valuable for local governments aiming to strengthen collaborative initiatives and effectively address complex challenges.

These findings underscore the significance of investing in the development of mayoral leadership capabilities. Enhancing the skills and competencies of mayors through targeted training programs and capacity-building initiatives could contribute to a higher level of cross-sector

collaboration (Follador, Tremblay-Racicot, Duarte, & Carrier, 2021; Page, 2010). Such programs should focus on enhancing negotiation, communication, and strategic planning skills to better prepare mayors and other local leaders for initiating and managing cross-sector collaborations. By equipping mayors with the necessary tools and knowledge to effectively engage with stakeholders from diverse sectors, local governments can improve their collaborative efforts and enhance their ability to address complex challenges.

In recognizing the limitations of the current study, particularly the focus on Thai lower-tier local governments and the potential for unexplored variables influencing cross-sector collaboration, the authors suggest future research to broaden the scope to include upper-tier local governments and examine additional factors such as organizational culture and international comparative analyses. This expansion can provide a more comprehensive understanding of cross-sector collaboration dynamics and offer insights into best practices that transcend local contexts. Further investigation into the longitudinal effects of leadership development programs on collaboration efficacy could also offer valuable evidence for policy formulation and implementation strategies.

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