Managing Dynamic Capability in the Public Sector A Case Study of the Bandung City Government's Response to the COVID-19 Pandemic

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Abstract. This research aims to examine how the Bandung City government navigates the significant challenges of managing the COVID-19 pandemic through the lens of the dynamic capability framework. The pandemic has posed an unprecedented challenge, requiring exceptional measures and responses. Despite the extensive literature on firm-level dynamic capabilities, there has been insufficient attention to the origins and dynamic development of similar capacities within the public sector. This study employs a qualitative case study approach, gathering data from interviews, official reports, and secondary sources. The findings reveal that Bandung City effectively employed dynamic capabilities in sensing, seizing, and transforming activities. Sensing involved systematic information collection and data analysis to understand the virus's spread and impact. Seizing included proactive public awareness measures, regulatory actions, strategic resource allocation, and the swift execution of decisions. Transforming was demonstrated through the implementation of new business models and processes, enhancing knowledge management, and fostering sustainability initiatives. The study underscores the critical role of collaboration, proactive strategies, and adaptability in managing public health crises. It highlights how dynamic capabilities can enhance the effectiveness and resilience of public sector responses to unprecedented challenges by fostering a comprehensive and inclusive approach involving diverse stakeholders, including academics, central agencies, and the media. Future research should explore comparative studies across different cities and investigate leadership styles that support the development and application of dynamic capabilities in the public sector.

Keywords: Automotive, Customer Preference, Marketing, Multi-Purpose Vehicle, Text Analytic, User-Generated Content.

S. Kusairi et al. (eds.), *Proceedings of the International Conference on Sustainable Collaboration in Business, Technology, Information, and Innovation (SCBTII 2024)*, Advances in Economics, Business and Management Research 303,
https://doi.org/10.2991/978-94-6463-558-4_20

1 INTRODUCTION

The public sector is often perceived as inert in their service delivery and change. Public sector inertia refers to the ability of the public sector to adapt and respond efficiently to changes (Faghih and Samadi, 2024). The public sector in Indonesia is often perceived as inert due to several factors (Nugroho et al, 2021; Asteriniah & Hestiriniah, 2023): (1) layered bureaucratic processes which can delay decision-making and program implementation also a rigid hierarchical structures and lengthy procedures hinder responsiveness; (2) some public sectors operate with limited budgets that possible to restricts their ability to adopt cutting-edge technology, recruit experts, or accelerate processes; (3) Changes in government, fluctuating policies, and political instability disrupt program continuity and project execution.

However, Mazzucato (2011) challenges the prevailing notion that the government is inert, contrasting it with a dynamic private sector. She argues that the public sector plays a critical role in fostering long-term innovation-led economic growth. Moreover, she explained the 21st century is marked by complex and interconnected challenges: climate change, health concerns, demographic shifts, and the need for sustainable and inclusive growth. These problems are often referred to as grand challenges because they require multifaceted and or multi-actor solutions.

A notable example of the public sector's response to grand challenges is the reaction of the Bandung city government to the COVID-19 pandemic. As the capital of West Java in Indonesia, Bandung has encountered substantial challenges in managing the pandemic since its inception in early 2020. The city's dense population, exceeding 2.5 million inhabitants, makes it particularly vulnerable to the rapid transmission of the virus (Miftah et al., 2023). The city's dynamic commercial activities, robust tourism sector, and numerous educational institutions have further exacerbated the complexities associated with controlling outbreaks.

The COVID-19 pandemic has presented an unparalleled challenge for the government of Bandung city, necessitating extraordinary measures and responses. Jung et.al. (2021) assert that both research and policy development must adopt a comprehensive approach that embraces complexity to formulate sustainable and long-term strategies for pandemic preparedness. In the context of pandemics, governments are required to organize rapid responses and mobilize resources efficiently. Effective governance necessitates the possession of both agility (dynamic) and resilience capabilities (Drechsler and Kattel, 2020). While a substantial body of literature exists on firm-level dynamic capabilities (Teece and Pisano, 1994), there has been inadequate focus on the origins and dynamic evolution of equivalent capacities within the public sector Mazzucato & Kattel (2020). This research examines how the Bandung city government navigates significant challenges in managing the COVID-19 pandemic through the lens of the dynamic capability framework.

2 LITERATURE REVIEW

Dynamic capability, as defined by Teece (1997), refers to a firm’s ability to integrate, construct, and adapt or reconfigure internal and external competences in response to a rapidly changing environment. This definition underscores that dynamic capabilities are rooted in competences—comprising knowledge, skills, and collective aptitude—that enable organizations to solve problems efficiently and gain a competitive advantage.

According to Eisendhardt and Martin (2000), dynamic capability refers to a firm's processes of integrating, reconfiguring, gaining, and releasing resources to align with the market or even create new markets. These processes are also known as organizational strategic routines. However, Wang and Ahmed (2007) view dynamic capability not as processes but as the firm's behavioral orientation—constantly integrating, reconfiguring, renewing, and recreating its resources.

Zollo and Winter (2002) conceptualize dynamic capability as a stable pattern of collective activities, developed through learning, that systematically generates and modifies operational routines to enhance effectiveness. Their focus is on the activity involved in altering these routines. Consistent with this, Winter (2003) asserts that dynamic capability serves to extend, modify, or create ordinary capabilities. Consequently, the terms operational capability and ordinary capability are acknowledged in this framework.

Helfat and Peteraf (2003) define dynamic capability as an organization's capacity to create, extend, or modify its resource base. This definition aligns with that of Ambrosini and Bowman (2009), who describe dynamic capability as encompassing organizational processes in a broad sense, with the primary role of altering the firm's resource base. Similarly, Zahra, Sapienza, and Davidson (2006) define dynamic capability as the ability to reconfigure a firm's resources and routines, incorporating the vision of decision makers.

In defining dynamic capability, the author aligns with Teece (2007) in emphasizing a firm's ability or capacity, a notion also supported by Helfat and Peteraf (2003) and Ambrosini and Bowman (2009). This capacity involves building, integrating, and reconfiguring resources (as noted by Teece et al., 1997; Zahra et al., 2006; Wang and Ahmed, 2007); modifying them (as suggested by Winter, 2003; Helfat and Peteraf, 2003); and even releasing them (as indicated by Eisenhardt and Martin, 2000). These processes apply to both tangible resources and intangible assets, with the objective of enhancing the firm's performance, market position, and achieving competitive advantage.

Dynamic capability differs from ordinary capability. Ordinary capability refers to the ability to achieve a certain level of sufficiency or excellence in performing specific tasks (Shuen, Feiler, and Teece, 2014), such as operations and administration. Other researchers describe ordinary capability as first-order capability (Danneels, 2002), zero-level capability (Winter, 2003), substantive capability (Zahra, Sapienza, and Davidsson, 2006), or zero and first-level capability (Easterby-Smith and Prieto, 2008). Ordinary capability is evident in metrics like labor productivity, inventory turnover, and delivery times, reflecting a focus on efficiency through "doing things right" (Wójcik, 2015). In contrast, dynamic capability involves 'orchestrating' a firm's tangible resources, intangible assets, and competencies to adapt to a changing environment (Teece, 2007).

For analytical clarity, Teece (2007) deconstructs dynamic capability in the context of 'orchestrating' a firm's resources into three distinct cluster of ability: (1) the ability to sense and shape opportunities and threats, (2) the ability to seize opportunities, and (3) the ability to sustain competitiveness by enhancing, combining, protecting, and reconfiguring both intangible and tangible assets as necessary.

Although there is a significant volume of literature addressing dynamic capabilities at the firm level, insufficient attention has been directed towards investigating the origins and dynamic development of similar capacities within the public sector, as highlighted by Mazzucato and Kattel (2020). Piening's work (2013) specifically examines dynamic capabilities within public sector

organizations (PSOs), highlighting the unique challenges and requirements these organizations face in adapting to change and improving performance. He emphasizes the need for public managers to use dynamic capabilities to create public value and meet accountability standards. In the upcoming discussion, we aim to analyze Teece's three distinct activities of dynamic capability within the context of public sector.

2.1 Sensing

Teece (2007) posits that a firm's ability to 'sense' opportunities involve engaging with external advancements in science and technology, identifying target market segments, understanding evolving customer needs and innovations, collaborating with suppliers and complementors, and directing internal R&D towards new technologies. In the context of the public sector, Kattel (2023) extends this concept of sense-making to encompass the capacity to interpret complex situations, understand challenges, and identify opportunities. Sense-making involves the systematic collection of information, thorough data analysis, and the formation of a comprehensive understanding of the environment. In Teece's framework, the activities of sensing are paralleled in Kattel's framework by the concept of connecting. Kattel argues that connecting emphasizes the creation of strategic linkages and collaborations, involving the establishment of networks, partnerships, and mechanisms for knowledge sharing.

2.2 Seizing

Once an opportunity is identified, a firm must 'seize' it by taking decisive actions to capitalize on it (Teece, 2007). Seizing opportunities involves: (a) designing and implementing organizational structures, processes, and incentives that facilitate the execution of strategic initiatives; (b) making critical investment decisions to develop new products, services, or capabilities; and (c) aligning the firm's resources and capabilities to effectively match market opportunities.
In the public sector context, the concept of seizing involves proactive measures to enhance public awareness, enact regulatory measures, allocate resources strategically, and execute strategic decisions effectively (Kattel & Mazzucato, 2018; de Magalhães Santos, 2023). This proactive stance requires public organizations to not only recognize opportunities but also to mobilize and deploy resources efficiently to address societal needs and drive innovation within the constraints of public governance. The ability to seize opportunities in the public sector is thus integral to fostering resilience and responsiveness in the face of dynamic challenges.

2.3 Transforming

To maintain competitiveness, a firm must continuously enhance, combine, protect, and reconfigure its intangible and tangible assets as necessary, a process Teece (2007) refers to as 'transforming.' This dynamic capability enables the firm to adapt to changes and sustain its competitive position over time. Essential activities within this capability include: (a) enhancing, combining, protecting, and reconfiguring both tangible and intangible assets; (b) implementing new business models and organizational processes; and (c) managing knowledge and learning to sustain the firm's knowledge base and innovative capacity.

In the public sector context, Teece's concept of transforming parallels Kattel's concept of shaping. Kattel (2023) posits that shaping involves the proactive role of public organizations in influencing and co-creating markets and societal outcomes. This approach extends beyond merely responding to market failures or existing conditions, encompassing active efforts to shape and transform markets to achieve public value. By embracing the shaping capability, public sector organizations can drive systemic change, foster innovation, and create conditions that support sustainable development and public welfare.

3 RESEARCH METHODOLOGY

The study adopts a qualitative case study methodology, utilizing an exploratory approach as defined by Yin (2009). This method is appropriate for examining a phenomenon deeply embedded in its context and beyond the researcher's direct influence. Qualitative case studies are well-suited to our aim of gaining a nuanced understanding of dynamic capability activities in public sector organizations, in line with Teece's (2007) framework. Exploratory research methods are particularly effective in uncovering phenomena such as sensing, seizing, and transforming within the public sector, which have not been widely examined in empirical research.

The selection of the Bandung city government's response to the COVID-19 pandemic as a case study is particularly relevant for investigating dynamic capabilities. The COVID-19 pandemic introduced unprecedented challenges, making the Bandung City government's response a complex and multifaceted case that allows for an in-depth analysis of the strategies employed. Managing a public health crisis like COVID-19 involves various stakeholders, policies, and interventions, which makes this case ideal for exploring how the Bandung city government adapted dynamically during the crisis.

Data collection includes both primary and secondary sources: (a) Conducting interviews with members of the Government Policy Advisory team, the Head of the Communicable Disease Control Division, and a member of the COVID-19 Task Force; (b) Reviewing official reports and evaluations commissioned by the Bandung city government; and (c) Utilizing secondary sources such as government publications and media reports. This comprehensive approach ensures a robust and detailed understanding of the dynamic capabilities in action

4 RESULT / FINDING

Bandung City is located at 107°36' East Longitude and 6°55' South Latitude (Pemerintah Kota Bandung, 2022). Geographically, it is in the central part of the Bandung basin, covering 233,000 hectares. The average population density in 2020 was 14,948 people per square kilometer (Pemerintah Kota Bandung, 2022). The administrative area of Bandung City consists of 30 districts and 151 sub-districts, as well as 1,858 community units and 9,890 neighborhood units, which are community-based organizations aimed at assisting the government (Pemerintah Kota Bandung, 2022). Based on age categories, the population composition is dominated by the productive age group. In 2020, the productive age range (15-64) comprised 69.24% (1,717,596 individuals) of the total population (Pemerintah Kota Bandung, 2022). The economic growth rate

of Bandung City contracted by 2.28 percent in 2020 due to the COVID-19 pandemic, which led to a decline in economic activities (Pemerintah Kota Bandung, 2022). Additionally, the poverty rate in Bandung City increased in 2020 compared to 2019, reaching 3.99%. This outcome is closely linked to the impact of the COVID-19 pandemic, which began in March 2020 and negatively affected the social and economic sectors of the community (Pemerintah Kota Bandung, 2022).

The outbreak of the COVID-19 pandemic has introduced unprecedented challenges on a global scale, including in Indonesia, the world's fourth most populous country, which is expected to experience significant impacts over an extended period (Djalante et al., 2020). As the virus rapidly spread worldwide in early 2020, Indonesia documented its initial cases in March (Susilo et al., 2020), with Bandung quickly emerging as a hotspot due to its dense population and high mobility (Manessa et al., 2020). Below are the findings from the case study on how the Bandung city government tackled significant challenges in managing the COVID-19 pandemic.

At the end of December 2019, the Head of the Communicable Disease Control Division received a letter from the Ministry of Health, which served merely as an informational update, indicating that a new virus had been discovered in China and that international tracking had begun. However, at that time, there were no confirmed cases in Indonesia according to the WHO. The WHO's updates ranged from initial alerts to the eventual declaration of the virus as a new disease and subsequently as an outbreak. This information was regularly accessed online. Meanwhile, in March, following the Depok case, an individual who had been exposed to the virus in Depok returned to Bandung without symptoms. Immediate tracking and isolation measures were implemented. At that time, the Ministry of Health, through Hasan Sadikin Hospital, had not yet confirmed any positive cases in Bandung, as the lab test results, sent to Jakarta for verification, were still pending. Despite this, isolation measures were already in place. This type of information was very sensitive, prompting the government to exercise caution due to growing public fear.

Meanwhile, during the early months of 2020 when COVID-19 first broke out in Wuhan, the secretary of the Bandung City Government Policy Advisory Team began sharing news about the spread of COVID-19 in limited discussions with department heads. In these discussions, a map of the global spread of COVID-19 was reviewed and responded to by the Head of the Bandung City Planning, Research, and Development Agency. The policy advisory team's initiative aimed to raise awareness at the Bandung City government level. When the virus arrived in Indonesia, the first COVID-19 case was reported in Depok, following interactions between two Depok residents and foreign nationals in early March (Noerkaisar, 2021). This event triggered public anxiety (Engkus et al., 2020), and public discussions began to emerge about the need to restrict people's movements.

At that time, the mayor convened the heads of departments and the secretary of the policy advisory team to discuss the latest information regarding COVID-19 in Bandung City. Consequently, the mayor called for a meeting attended by department heads, the policy advisory team, the Chief of the Bandung City Police, the District Military Commander, and key figures in Bandung City to discuss the current COVID situation, leading to the decision to issue a Circular Letter from the Mayor of Bandung City issues the following policies (Pemerintah Kota Bandung, 2020):

a. All residents of Bandung City are advised to increase their vigilance by practicing clean and healthy living in various places, avoiding crowds, and refraining from unnecessary travel.
b. Residents who observe or experience symptoms similar to those of Corona Virus Disease 19 (COVID-19) should contact the call centre at 119.
c. Temporarily suspend various activities organized by the Bandung City Government and/or other parties that involve large gatherings.
d. Implement distance learning through online media for students in educational units under the authority of the Bandung City Government and encourage other educational institutions to do the same.
e. Instruct all healthcare personnel and facilities to be on alert to face the spread of the COVID-19 pandemic in Bandung City and to follow the guidelines issued by the Bandung City Health Department.
f. All public services of the Bandung City Government will operate as usual while adhering to measures to prevent the spread of COVID-19.
g. Temporarily suspend the activities of Integrated Service Posts (called Posyandu) and Integrated Development Posts (called Posbindu).
h. public areas owned by the Bandung City Government are temporarily closed (such as Bandung Square, City Parks, Bandung Planning Gallery, Bandung City Museum, Bandung Creative Hub, Bandung Command Center, sports facilities, etc.).
i. Urge all institutions, offices, places of worship, railway stations, bus terminals, tourism bus depots, travel depots, airports, and tourism businesses to implement maximum health standards and efforts to prevent the spread of COVID-19 in accordance with their respective policies.
j. Urge all markets, shops, shopping centres, and modern stores to remain open while implementing maximum health standards and efforts to prevent the spread of COVID-19.
k. Residents are urged not to excessively purchase basic necessities as stock remains secure and available.
l. Instruct all Regional Devices and City-Owned Enterprises of Bandung City to follow up on this Circular Letter according to their respective duties and functions.
m. Residents are urged to remain calm and continually pray to God Almighty.
n. For information related to COVID-19, contact the call center at 112 or visit the website commandcenter.bandung.go.id.

This Circular Letter is effective from the date of issuance and will be evaluated within 14 (fourteen) days based on the development of the COVID-19 pandemic. This Circular Letter is conveyed for attention and to be carried out with full responsibility.

The frontline spearhead was the Health Office, as all health facilities in Bandung City fall under the management of the Health Office. Consequently, all cases were reported, and at that time, the Health Office coordinated with the provincial Health Office and was connected with the Ministry of Health. The situation seemed to indicate a diagnostic crisis for confirming COVID diagnoses, as only a few lab facilities were available, and not all labs could conduct polymerase chain reaction (PCR) tests. This was because not all hospitals had Bio Safety Level 2 (BSL 2) laboratories, which require negative pressure rooms with HEPA filters (Sivaprasad, 2020; Nizam & Hendayana, 2020). The shortage of diagnostic equipment meant that not all information could be

verified. People exhibited symptoms, but it was unclear whether these were due to common flu or COVID-19. Many people began experiencing symptoms like COVID-19. The waiting time from the test to the results ranged from 7 to 14 days (about 2 weeks) due to the backlog at the BSL 2 laboratory operated by the West Java Regional Health Laboratory, which served the entire West Java region.

During that time, the prolonged delay in receiving diagnostic results was quite challenging, and PCR test kits remained in short supply. While rapid tests were available, they only tested blood and were unable reliably confirm infections, leading to the possibility of false negatives for COVID exposure. Recognizing this, Oded Muhammad Danial the Mayor of Bandung, made a crucial decision to allocate investment for establishing their own BSL 2 laboratory (Infopublik, 2020). This move significantly eased the diagnostic crisis. Previously, results took 7 to 14 days (about 2 weeks), but by April 2020, Bandung City had its BSL 2 Lab operational, providing results within just one day. Bandung City stands out among Indonesian cities for its early initiative in establishing a Biosafety Level 2 (BSL-2) laboratory during the onset of the COVID-19 pandemic. Subsequently, this endeavor gained momentum as other regions followed suit, spurred by a sense of crisis instigated by the government through the formation of COVID-19 task forces (Keppres, 2020). Consequently, the procurement process for laboratories was facilitated. Furthermore, the participation of private entities proved significant in contributing substantially to mitigating the diagnostic crisis posed by COVID-19 (Putera et.al., 2022).

At that time, the Bandung city government, through the Head of the Bandung City Planning, Research, and Development Agency frequently invited academics, including health academics, epidemiologists, and mathematicians specializing in modeling, to predict COVID-19 trends, its spread, and other impacts. These models used simulations to forecast when the prevalence of COVID-19 would exert significant pressure on healthcare services, thereby informing policies on restricting community activities (Nuraini & Apri, 2020). Thus, when it was predicted that the burden on healthcare facilities was increasing, restrictions on community activities were reimposed. Therefore, the first to be invited to collaborate were the academics. This is because pandemics, with their extensive cycles, have not been experienced or studied by everyone. The individuals with the knowledge and expertise to understand pandemics are those who have specifically studied them, namely epidemiologists, mathematicians, economists, sociologists, and others in related fields.

Coordination was conducted with higher levels of government, both provincial and central, because all actions taken by the city government were extraordinary measures or crisis responses. Consequently, all procurement mechanisms were discretionary, and numerous regulations were issued to facilitate, for example, the procurement of medical equipment. At that time, a refocusing of the regional expenditure budget was undertaken. The budgeting was concentrated on COVID-19 response efforts, with a specified percentage of the regional budget (APBD) allocated for handling COVID-19. Budgets for government agencies that were not directly related to COVID-19 were reduced, while additional funds were allocated to the health department for purchasing PCR testing equipment and renting hotels for residents needing isolation. There were also budget allocations for economic assistance for those affected by COVID-19.

Regarding public awareness, the first step involved the issuance of a circular by the mayor, followed by several related regulations. Subsequently, other advisories and policies from the city government related to COVID-19 were issued biweekly. Meetings related to COVID-19 were conducted at the Regional Leadership Communication Forum (Forkompimda, an acronym for

'Forum Komunikasi Pimpinan Daerah'), ensuring that all consequences of the decisions taken, and the necessary facilitation were implemented collaboratively in Bandung City. The Forkopimda included the mayor, the heads of regional representative councils, regional police chiefs, regional prosecutors, regional military commanders, and department heads. With the issuance of the Mayor's Decree establishing the COVID-19 Task Force team, various parties were involved, including Forkompimda, academics, relevant central agencies such as the Port Health Office, the Indonesian Air Force in relation to city's airport, Jasa Marga in relation to toll roads, immigration agencies, and the media for public communication.

During the COVID-19 pandemic, a new capability that the city government had to acquire was how to accurately calculate the capacity of adequate healthcare services. This issue became prominent among healthcare stakeholders, including professionals, doctors, scientists, and government officials. Epidemiologically, pandemics have a certain cycle (Ioannidis, 2020), and thus, after this pandemic, there must be new calculations regarding the ratios of healthcare services and facilities. Post-pandemic, it is essential to conduct evaluations or reflections on the preparedness of healthcare facilities and services to ensure readiness for future crises. The Department of Communication and Information has developed an information system that visually maps areas with confirmed COVID-19 cases, facilitating better management and coordination among relevant parties. Additionally, the ability to communicate information to the public has been accelerated. Furthermore, the capacity to balance empathy with decisiveness was improved. Coordination with private hospitals, non-governmental organizations, and the community was also significantly enhanced.

Prior to the pandemic, the mayor had launched the KangPisMan program (Ardianti et al., 2022), an acronym for "Kurangi, Pisahkan, dan Manfaatkan Sampah" (reduce, sort, and reutilize waste). This campaign aimed to encourage the residents of Bandung City to adopt the 3Rs approach: Reduce, Reuse, and Recycle, in their waste management practices. During the COVID-19 pandemic, a new practice emerged among the residents of Bandung City, who enthusiastically engaged in the KangPisMan program. The KangPisMan program was subsequently coupled with an urban farming initiative (Sutriadi et.al., 2022) called 'Buruan Sae' an acronym for "Buruan Sehat Alami dan Ekonomis" (Healthy, Natural and Economical Yard). At that time, groups began to form for composting their organic waste at the household level, using the compost as a planting medium for home farming. This program became increasingly relevant during the COVID-19 pandemic, when movement restrictions disrupted the supply chain for essential food items. Enhancing a city's self-sufficiency in food production can significantly contribute to urban food security.

5 DISCUSSION

The response of Bandung City to the COVID-19 pandemic illustrates a comprehensive application of dynamic capabilities, effectively addressing unprecedented challenges through sensing, seizing, and transforming. As a densely populated urban center, Bandung faced immense pressure to manage the health crisis while sustaining socio-economic stability. The case study of Bandung City's response to COVID-19 provides several key insights and discussions outlined in Table 1. Below:

Table 1. Dynamic Capability Distinct Activities in Bandung City Government

Dynamic Capabilities Distinct Activities	Bandung City Government to the COVID-19 activities
Sensing	
• Systematic collection of information	In December 2019, the Head of the Communicable Disease Control Division received a notification from the Ministry of Health regarding a new virus emerging in China. As COVID-19 began to spread in Wuhan in early 2020, the secretary of the Bandung City Government Policy Advisory Team initiated limited discussions with department heads to share updates on the virus. During these meetings, the Head of the Bandung City Planning, Research, and Development Agency reviewed and responded to a map detailing the global spread of COVID-19
• Thorough data analysis	The COVID-19 Task Force carried out comprehensive analyses of the virus's global spread, utilizing maps and other analytical tools to monitor its progression. By March 2020, when Indonesia reported its initial cases, Bandung had already initiated local tracking and isolation of potential cases, even as lab confirmations were awaited. Data analysis was employed to forecast the virus's impact on healthcare services, shaping policies on community activity restrictions.
• The formation of a comprehensive understanding of the environment	The COVID-19 Task Force carried out comprehensive analyses of the virus's global spread, utilizing maps and other analytical tools to monitor its progression. By March 2020, when Indonesia reported its initial cases, Bandung had already initiated local tracking and isolation of potential cases, even as lab confirmations were awaited. This proactive strategy, driven by meticulous data analysis, enabled the city to implement early containment measures effectively. Furthermore, data analysis was employed to forecast the virus's impact on healthcare services, shaping policies on community activity restrictions.
• Creation of strategic linkages and collaborations	The city government developed partnerships with a range of stakeholders, such as private hospitals, NGOs, and community groups. These collaborations were vital for coordinating response efforts, including case tracking, isolation, and public information dissemination. The formation of the COVID-19 Task Force, comprising members from the Regional Leadership Communication Forum (Forkompimda), academics, and central agencies, ensured coordinated actions across various sectors.
Seizing	
• Proactive measures to enhance public awareness	The city employed various communication channels to disseminate information about COVID-19, covering its symptoms, preventive measures, and the importance of following health guidelines. Public information campaigns were initiated to educate residents on the need for social distancing, wearing masks, and maintaining good hygiene. The Department of Communication and Information was instrumental in this effort, developing a system that visually mapped areas with confirmed COVID-19 cases. This visualization helped the public grasp the severity of the situation in their local areas, thereby promoting adherence to health advisories.

• Enact regulatory measures	The mayor issued a Circular Letter detailing policies such as the suspension of large gatherings, the implementation of distance learning, and the temporary closure of public spaces, including parks and museums. These measures aimed to mitigate virus transmission by restricting social interactions and public gatherings. Furthermore, health protocols were mandated for all public and private institutions, encompassing offices, places of worship, transportation hubs, and commercial establishments.
• Allocate resources strategically	The city government prioritized funding for health-related initiatives, such as procuring medical supplies and equipment, setting up isolation facilities, and supporting healthcare workers. A key decision was allocating funds to establish a Biosafety Level 2 (BSL-2) laboratory in Bandung, which greatly reduced the waiting time for COVID-19 test results, allowing for quicker isolation and treatment of infected individuals. Additionally, the city allocated resources for economic assistance programs to support residents affected by the pandemic, ensuring that vulnerable populations received necessary aid during the crisis.
• Execute strategic decisions	The mayor's leadership in convening meetings with key stakeholders facilitated coordinated decision-making, ensuring all actions aligned with the overall strategy. The formation of the COVID-19 Task Force enabled the focused and efficient execution of policies, with clearly defined roles and responsibilities for each member. Strategic decisions, such as quickly establishing a BSL-2 laboratory and implementing a comprehensive public information system, exemplify the city's precise execution. Additionally, the government's engagement with academics and experts for predictive modeling and scenario planning allowed for informed and timely interventions.
Transforming	
• Implementing new business models and organizational processes	The city government adapted to the evolving landscape by leveraging technology and innovative strategies. For instance, the rapid transition to remote work and online services ensured continuity of government functions while minimizing physical interactions. Distance learning for students was implemented via online platforms, allowing education to continue despite school closures. Furthermore, the public health response was strengthened through new processes for tracking and isolating COVID-19 cases, including the establishment of the BSL-2 laboratory, which enhanced the efficiency of diagnostic testing.
• Managing knowledge and learning	The city actively collaborated with experts from diverse fields, including health academics, epidemiologists, and mathematicians, to gain insights into the virus's spread and impact. This interdisciplinary collaboration enabled the development of predictive models that informed policy decisions and anticipated future challenges. Additionally, the city established a robust information system to centralize COVID-19 data, facilitating real-time analysis and informed decision-making. Regular training and updates for healthcare personnel ensured they were equipped with the latest knowledge and skills to manage the evolving situation effectively.

• Proactive role of public organizations in influencing and co-creating markets and societal outcomes	The city government actively influenced public behavior and market dynamics through several initiatives. The KangPisMan program, initially focused on waste reduction, sorting, and recycling, was expanded during the pandemic to include urban farming under the 'Buruan Sae' initiative. This program encouraged residents to compost organic waste and engage in home gardening, fostering self-sufficiency and sustainability. Additionally, the city collaborated with private sectors, NGOs, and community organizations to support economic recovery and social welfare programs.

The study findings of sensing in Bandung city government align with the study of Salazar et.al (2021) which entail recognizing new opportunities and threats, along with reconfiguration capabilities, which encompass the adjustment and transformation of resources, were found to significantly influence the global productivity and knowledge integration or transfer in Mexican Public Research Institutes (PRIs). This underscores the crucial role of environmental awareness and resource adaptability in ensuring these institutes' productivity and effectiveness in knowledge transfer. The case study illustrates that the Bandung City government's leadership during the COVID-19 pandemic was characterized by a collaborative, proactive, and adaptive approach. By involving a diverse range of stakeholders, including the Regional Leadership Communication Forum (Forkompimda), academics, central agencies, and the media, the government fostered a comprehensive and inclusive response. This collaboration ensured that decisions were well-informed and benefited from various perspectives. The study's findings align with those of Wogwu et al. (2018), suggesting that reconfiguration capability—an organization's ability to restructure assets and acquire new knowledge—is crucial for achieving a competitive advantage in the Nigerian public health sector. The leadership's proactive measures in Bandung city government, such as the early issuance of a circular on preventive practices, the immediate implementation of tracking and isolation protocols, and the establishment of a BSL-2 laboratory, underscore a forward-thinking and strategic approach to crisis management. Regular biweekly updates and policy adjustments based on new information further demonstrate the government's adaptability and commitment to data-driven decision-making. Comparably, the study of Loureiro et.al. (2021) also suggest that leaders in healthcare organizations are pivotal in initiating dynamic capabilities by recognizing the need for change and driving the process forward. Their role is crucial for adapting to new challenges and opportunities.

6 CONCLUSION AND RECOMMENDATION

The Bandung City government's response to the COVID-19 pandemic exemplifies the essential role of dynamic capabilities in the public sector. This case study offers valuable insights into how public organizations can effectively navigate complex and evolving environments by fostering collaboration, embracing proactive measures, and maintaining adaptability. The city's dynamic capabilities were demonstrated through activities categorized as sensing, seizing, and transforming. Sensing activities involved systematic information collection, comprehensive data analysis, and the formation of strategic linkages and collaborations. Seizing included proactive public awareness measures, the enactment of regulatory policies, strategic resource allocation, and the execution of strategic decisions. Transforming was evident in the implementation of new

business models and processes, knowledge and learning management, and the proactive role of public organizations in shaping societal outcomes.

However, the study has certain limitations that must be acknowledged. While it effectively captures the administrative and strategic responses of the Bandung City government, it does not sufficiently address grassroots-level challenges and community-specific issues that may have influenced the overall effectiveness of these measures. Additionally, the focus on the city's internal dynamics may overlook the broader regional and national contexts that could affect the implementation and outcomes of local policies. Future research could benefit from comparative studies involving other cities or regions to provide broader insights into the varying applications of dynamic capabilities in diverse contexts, such as cities with different Human Development Index levels. Additionally, future research should further explore leadership styles conducive to fostering dynamic capabilities in the public sector.

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