

Management Control System And Performance Of Public Sector Organizations

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Abstract

Management control systems (MCSs) have increasingly become important mechanisms for public sector organizations facing accountability requirements, efficiency pressures, service-quality demands, environmental uncertainty, digital transformation, and sustainability challenges. Nevertheless, empirical evidence concerning the relationship between MCSs and public sector organizational performance remains fragmented because control effectiveness depends on organizational context, control use, institutional pressures, organizational capabilities, and environmental conditions. This study aims to synthesize the development of research on MCSs and public sector organizational performance by integrating Contingency Theory, Agency Theory, Institutional Theory, Levers of Control, the Resource-Based View, Dynamic Capabilities Theory, and Public Value Theory. A Systematic Literature Review (SLR) approach was adopted using the PRISMA 2020 reporting principles, while journal articles were verified through publisher metadata, DOI records, and academic repositories. Forty core articles were used as the evidence base, consisting of empirical studies, systematic reviews, and relevant conceptual studies. The synthesis indicates that MCSs should not be understood as a single control mechanism but as a control package integrating performance measurement, diagnostic control, interactive control, boundary systems, belief systems, risk management, information systems, and organizational learning. Contingency Theory suggests that MCS effectiveness depends on the fit between control design and organizational context. From the Levers of Control perspective,

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simultaneous diagnostic and interactive uses enable public organizations to maintain control while supporting learning and adaptation. Institutional Theory explains that some MCS practices are adopted because of legitimacy pressures, whereas the Resource-Based View and Dynamic Capabilities Theory explain how MCSs can become mechanisms for developing organizational capabilities that contribute to performance. The review further identifies research gaps concerning the integration of MCSs with risk management, digitalization, institutional pressures, organizational resilience, and public value. Future research should develop multi-theoretical models and empirically examine the MCS–capability–performance relationship in Indonesian public sector organizations, particularly local governments.

Keywords: Management Control Systems; Public Sector Performance; Levers of Control; Contingency Theory; Institutional Theory; Dynamic Capabilities; Public Value.

INTRODUCTION

Public sector organizations face demands to simultaneously improve the efficiency, effectiveness, accountability, and quality of public services, so that management control no longer serves only as a compliance check mechanism but also as a mechanism for achieving organizational goals (Felício et al., 2021; Hood, 1991). The New Public Management perspective explains that public sector reform encourages government organizations to adopt management practices that are more performance-oriented, results measurement, accountability, and the use of managerial information (Hood, 1991). In this context, MCS becomes relevant because it provides a mechanism for translating strategic objectives into targets, performance measures, oversight processes, evaluations, and corrective actions (Chenhall, 2003; Otley, 1980).

(Felício et al., 2021) show that public sector organizations face a dynamic environment and budget constraints so that MCS can be used to help achieve organizational goals. The study found that MCS configuration is related to the achievement of public organizational goals, thus supporting the view that MCS needs to be understood as a control package, not just a performance measurement instrument.

In the perspective of Contingency Theory (Otley, 1980) explains that there is no single control system that is universally the most effective because the effectiveness of the system depends on the compatibility between the control system and the characteristics of the organization. (Chenhall, 2003) expands on this argument by showing that the design of the MCS



is influenced by the environment, technology, structure, strategy, organizational size, and organizational characteristics. Therefore, the relationship between MCS and the performance of public sector organizations should not be assumed to be linear because the effectiveness of control can differ when organizations face environmental uncertainty, complexity of objectives, or the demands of different stakeholders.

These problems become increasingly complex because public sector performance cannot always be adequately represented through financial measures. Performance Measurement Systems (PMS) in the public sector face the problem of ambiguity because public organizations must measure goals that are multidimensional, often not easily quantified, and involve diverse stakeholder interests (Oppi et al., 2022). A systematic review (Oppi et al., 2022) showed that of the 1,278 abstracts that met the initial criteria, 131 articles were read in full and 37 articles were finally used in their synthesis, suggesting that ambiguity is a fundamental issue in public sector performance measurement.

(Van der Kolk, 2022) also shows that the use and characteristics of performance measurement systems, such as fairness, subjectivity, and clarity, can affect performance measurement outcomes in public organizations. Thus, the mere existence of performance indicators does not guarantee performance improvement because the way they are used and perceived by organizational members also determines the consequences of control.

The next issue is the relationship between control and organizational adaptation. Control systems that overemphasize compliance can strengthen discipline but potentially limit learning, while overly flexible controls can increase adaptation but potentially undermine accountability (Baird et al., 2023; Simons, 1995). In the context of the public sector, the dilemma becomes even more important as organizations must maintain compliance with regulations while responding to changing societal needs.

Research on Levers of Control shows that belief systems, boundary systems, diagnostic control systems, and interactive control systems can be used simultaneously to create a balance between constraint and empowerment (Simons, 1995). (Baird et al., 2023), for example, found that belief systems, interactive control, and diagnostic control are related to organizational resilience through organizational capability mechanisms.

The risk dimension also expands the issue of public sector MCS. (Bracci et al., 2022) through a systematic literature review shows that public sector organizations have implemented risk-based control, but the integration between risk management and management accounting



control systems is still inadequate. The findings show the need to integrate risk into the MCS design rather than treating risk management as a separate system. The findings are reinforced by (Bracci et al., 2024), which shows that the integration of performance management and risk management in public organizations is still a relatively underempirically researched area. The study shows the importance of the role of organizational actors in integrating performance management and risk management practices.

Digital developments have also changed the function of MCS (Elbashir et al., 2022) showing that business intelligence can be integrated into MCS to improve business process performance in public sector organizations, based on a survey of 226 respondents representing 160 public organizations in Australia. Thus, the main phenomenon that emerged is that public sector MCS has shifted from control for compliance to control for performance, learning, risk management, resilience, and public value. This shift is in accordance with Institutional Theory because control systems are also influenced by regulative, normative, and mimetic pressures from the organizational environment (DiMaggio & Powell, 1983; Meyer & Rowan, 1977).

However, existing research is still fragmented. Some studies place MCS as a performance antecedent, others place performance measurement as the center of analysis, while more recent research is beginning to link MCS to risk management, digitalization, resilience, sustainability, and organizational capabilities (Pham & Vu, 2025; Weber et al., 2024; Bracci et al., 2022; Felício et al., 2021).

The first research gap lies in theoretical fragmentation because public sector MCS research has not consistently integrated Contingency Theory, Institutional Theory, Levers of Control, Resource-Based View, Dynamic Capabilities Theory, and Public Value Theory in a single synthesis framework (Duchek, 2020; Chenhall, 2003; Simons, 1995; Barney, 1991;).

The second research gap lies in the fragmentation of mechanisms, as the relationship between MCS and performance is often tested directly, while capabilities such as strategic flexibility, organizational resilience, employee empowerment, and organizational learning have the potential to be important mediators (Baird et al., 2023; Phan et al., 2023; Nuhu et al., 2019)

A third research gap relates to the integration of MCS and risk management, as the public sector literature shows that the two systems often develop in parallel despite conceptually having a close relationship in decision-making and uncertainty control (Bracci et al., 2024; Bracci et al., 2022).



The fourth research gap is related to the Indonesian context, because although research on government internal control and performance accountability in Indonesia has developed, the integration between MCS as a management package, institutional pressures, organizational capabilities, risk governance, and public value is still relatively limited (Rahmasari & Setiawan, 2022; Maharani, 2021; Winarna et al., 2021).

Based on the research gap, this study asks the main question: how does MCS affect the performance of public sector organizations, through what theoretical mechanisms does this relationship occur, and what conditions cause MCS to be effective or produce unintended consequences? This research is to synthesize research evidence on MCS and the performance of public sector organizations, identify the theories used, map research variables and methods, identify research gaps, and develop relevant research agendas for Indonesian public sector organizations.

LITERATURE REVIEW

Agency Theory

Agency Theory explains the relationship between principals and agents that can cause information asymmetry and conflicts of interest (Jensen & Meckling, 1976). In the public sector, the public, legislative, and central government can be positioned as the principal, while bureaucrats and managers of public organizations play the role of agents in the implementation of public programs. MCS can reduce agency problems through targeting, monitoring, reporting, performance measurement, auditing, and internal control (Jensen & Meckling, 1976). However, target-based control can also cause dysfunctional behavior if indicators are used narrowly as a pressure tool (Castelo & Gomes, 2024; Van der Kolk, 2022).

Contingency Theory

Contingency Theory explains that the effectiveness of a control system depends on the suitability between the system and the conditions of the organization and its environment (Otley, 1980). In MCS, the theory means that effective control design in organizations with stable environments is not necessarily effective in organizations that face high uncertainty (Chenhall, 2003). In public sector organizations, contingency fit becomes important because governments have different bureaucratic structures, levels of regulation, stakeholder complexity, and objective characteristics than business organizations (Felício et al., 2021). Therefore, public sector MCS



research should not only ask whether MCS improves performance, but also when, under what conditions, and through what mechanisms MCS improves performance.

Institutional Theory

Institutional Theory explains that organizations not only adapt to increase efficiency, but also to gain legitimacy from the institutional environment (Meyer & Rowan, 1977). (DiMaggio and Powell, 1983) explain that organizations can experience coercive, mimetic, and normative isomorphism. In the public sector, the adoption of performance measurement, internal control, risk management, and sustainability control can be influenced by regulations, professional standards, government demands, and other organizational practices (Modell, 2022). Modell (2022) shows that institutional research on public sector performance measurement needs to move from simply looking at the influence of institutions on practice to understanding how performance measurement practices also shape institutions.

Levers of Control

(Simons, 1995) describes the four levers of control, namely belief systems, boundary systems, diagnostic control systems, and interactive control systems. Belief systems communicate organizational values and direction, boundary systems limit unwanted behaviors, diagnostic controls monitor the achievement of targets, while interactive controls encourage dialogue and strategic learning. Empirical evidence suggests that these four mechanisms should not be understood as substitute options because the combination of several mechanisms can create better control effectiveness (Baird et al., 2023; Phan et al., 2023). Therefore, public sector MCS is more accurately understood as a control package than a single control tool.

Resource-Based View

The Resource-Based View states that organizational excellence can come from valuable, rare, inimitable, and non-substitutable resources and capabilities (Barney, 1991). In the public sector, MCS can be seen as an organizational infrastructure that helps organizations develop decision-making, coordination, learning, and resource allocation capabilities. Thus, MCS not only functions as a monitoring mechanism, but can also be a resource that supports the development of organizational capabilities (Phan et al., 2023).



Dynamic Capabilities Theory

Dynamic Capabilities Theory describes the ability of organizations to sense, seizing, and transforming in the face of environmental changes (Teece et al., 1997). This perspective is relevant for the public sector because government organizations must adapt to technological changes, crises, societal needs, and policy changes. Within this framework, MCS can be a sensing mechanism through performance information, seizing through decision support, and transforming through organizational learning and strategic adaptation (Weber et al., 2024; Baird et al., 2023).

Public Value Theory

Public Value Theory emphasizes that the success of public organizations is not only determined by internal efficiency but also by the ability to generate value for society and public stakeholders (Moore, 1995). Therefore, MCS that is only oriented to costs or administrative targets does not necessarily reflect the success of public organizations. Public value expands the definition of performance from financial performance to service quality, citizen outcomes, accountability, legitimacy, equity, and societal outcomes (Castelo & Gomes, 2024; Moore, 1995).

RESEARCH METHODS

This study uses the Systematic Literature Review (SLR) approach to identify, evaluate, and synthesize research on MCS and the performance of public sector organizations. The SLR approach was chosen because research on public sector MCS is developing in various disciplines, including management accounting, public administration, public management, organizational theory, and performance management (Van Helden & Reichard, 2016). Review reporting follows the principles of PRISMA 2020 because the guidelines are designed to increase transparency regarding the reasons for review, the process of identifying studies, selection, and synthesis of research results (Page et al., 2021). PRISMA 2020 provides a 27-item checklist and flowchart to assist in transparent systematic review reporting.

3.1 Review Questions

The review questions are structured as follows:

RQ1: What is the most widely used theory in MCS research and the performance of public sector organizations?

RQ2: How does MCS affect the performance of public sector organizations?



RQ3: What variables play a role as mediators, moderators, or mechanisms in the relationship between MCS and performance?

RQ4: How is MCS used to deal with risk, uncertainty, digitalization, and organizational resilience needs?

RQ5: What research gaps can be on the next research agenda, especially in the Indonesian context?

3.2 Search Strategy

The main keywords used in literature searches are combinations:

1. Management control system, public sector and performance
2. Management control system, public organization and performance
3. Management control, government and performance
4. Management control system, public sector and risk
5. Management control system, public sector and resilience performance

The literature is prioritized in peer-reviewed journal articles, systematic review articles, and conceptual articles that have verifiable DOIs.

3.3 Inclusion Criteria

Articles are included when they meet the following criteria:

- Discuss MCS, management control, performance measurement, management accounting control, or control package;
- Have a substantive relationship with a public sector organization or provide relevant theories to explain the public sector MCS;
- Discuss organizational performance, public performance, accountability, resilience, risk governance, organizational capability, or relevant outcomes;
- Published in academic journals;
- Have verifiable publisher DOIs or metadata;
- Prioritized in the 2021–2025 article for the latest evidence, with fundamental theory articles still used as theoretical foundations.

3.4 Exclusion Criteria

An article is issued if it only discusses financial accounting without a relationship with management control, only discusses the private sector with no theoretical contribution to MCS, is an editorial with no conceptual contribution, or metadata and DOIs cannot be verified.



RESULTS OF SYSTEMATIC LITERATURE REVIEW

4.1 Evidence Base

Based on the literature search and verification carried out for the preparation of this manuscript, the core 40 articles are used as an evidence base. The number 40 is the number of studies used in the synthesis of the manuscript, not the claim of the total number of articles found on Scopus or the Web of Science. This distinction is methodologically important. PRISMA requires that the number of records identified, screened, assessed for eligibility, and included in the review be reported transparently (Page et al., 2021). Therefore, the PRISMA identification number must be filled in from the results of the Scopus/WoS/ScienceDirect database export that the researcher actually uses, and should not be made based on search engine estimates.

4.2 Synthesis of Findings

Table 1. Distribution of Theory

Key Perspectives/Theories	Number of Articles	Percentage
Contingency Theory	4	10.0%
Institutional Theory	6	15.0%
Levers of Control	7	17.5%
Agency Theory	2	5.0%
Resource-Based View / Dynamic Capabilities	2	5.0%
Performance Management / Measurement	3	7.5%
Risk Governance / Risk Management	3	7.5%
Internal Control	3	7.5%
Management Control	6	15.0%
Information Systems	1	2.5%
Performance Auditing	1	2.5%
Methodological / Evidence Synthesis	1	2.5%
Theory Development	1	2.5%



Main Perspective/Theory Distribution Table (processed from 40 studies in the MCS Literature Review Matrix).

Table 2. Distribution of Method

Method	Number of Articles	Percentage
Quantitative	9	22.5%
SLR	8	20.0%
Survey	6	15.0%
Case study	4	10.0%
fsQCA	1	2.5%
Empirical study	1	2.5%
Reflective review	1	2.5%
Conceptual review	1	2.5%
Review	1	2.5%
Literature review	1	2.5%
Exploratory study	1	2.5%
Mixed/empirical	1	2.5%
Multiple case study	1	2.5%
Quantitative/Conceptual	1	2.5%
Empirical	1	2.5%
Methodological review	1	2.5%
Methodological framework	1	2.5%

Research Method Distribution Table (based on the input in the MCS Literature Review Matrix).

Table 3. Distribution of Country

Country/Context	Number of Articles	Percentage
Indonesia	11	27.5%
Public sector	7	17.5%
International	6	15.0%
Australia	4	10.0%
Portugal/public organizations	1	2.5%
Local public sector	1	2.5%



Country/Context	Number of Articles	Percentage
Government, health, education	1	2.5%
Global/public administration	1	2.5%
Brazil/Portugal	1	2.5%
Italy/public government	1	2.5%
Vietnam/public sector	1	2.5%
Sweden/public employment	1	2.5%
Netherlands	1	2.5%
Malaysia	1	2.5%
Portugal	1	2.5%
Brazil/organizations	1	2.5%

Country/Context Distribution Table (based on the fields in the MCS Literature Review Matrix).

SYNTHESIS OF FINDINGS

5.1 MCS and Performance: Non-Linear Relationships

The synthesis shows that the relationship between MCS and public sector performance cannot be reduced to a direct relationship "the stronger the control, the higher the performance". Contingency Theory explains that the effectiveness of MCS depends on the fit between control design and organizational conditions (Chenhall, 2003; Otley, 1980). Important evidence is that MCS configuration can be associated with the achievement of public organizational goals, but the findings also point to the importance of understanding MCS as a package (Felićio et al., 2021). These findings mean that the existence of individual budget control, performance indicators, internal control, or reporting systems does not necessarily result in performance if they are not integrated with decision-making strategies and processes (Chenhall, 2003; Simons, 1995).

5.2 Performance Measurement Is Not the Same as Performance Improvement

Performance measurement is one of the elements of MCS, but performance measurement is not synonymous with performance improvement (Van der Kolk, 2022). Measurement only produces information, while performance improvement requires the use of information for decision making, learning, resource allocation, and corrective action. Performance measurement in the public sector faces ambiguity because public goals have many dimensions and often contradict each other (Oppi et al., 2022).



Fairness, subjectivity, and clarity affect performance measurement outcomes. Implicitly, MCS research should not only use performance measurement as an independent variable, but also assess how performance information is used (Van der Kolk, 2022).

5.3 Diagnostic Control and Interactive Control

Diagnostic control as a monitoring mechanism for the achievement of targets with interactive control as a mechanism for strategic dialogue and organizational learning (Simons, 1995). In the public sector, diagnostic control is needed because the government must be accountable for the achievement of targets, budgets, and regulations, while interactive control is needed because organizations must respond to uncertainty, community needs, and environmental changes (Felício et al., 2021; Simons, 1995;).

Belief systems, interactive controls, and diagnostic controls can support organizational resilience (Baird et al., 2023). Positive control systems can be related to organizational resilience and workplace flexibility, which in turn contribute to organizational performance (Phan et al., 2023).

The findings provide support for the MCS model → organizational capabilities → performance, not just the MCS model → performance.

5.4 MCS as an Organizational Capability Builder

The Resource-Based View explains that organizational resources can produce excellence if the organization is able to develop capabilities that are difficult to replicate (Barney, 1991). In the context of MCS, a control system can be an infrastructure that helps organizations develop coordination skills, information processing, learning, and adaptation. Organizational resilience and workplace flexibility act as mechanisms that connect positive control systems with organizational performance (Phan et al., 2023).

These findings indicate that MCS can be positioned as a capability-enabling mechanism. Thus, MCS's contribution to performance does not always occur directly.

5.5 MCS and Organizational Resilience

Resilience becomes increasingly relevant after public organizations face health crises, economic disruptions, technological changes, and policy uncertainty. Systematic review shows that MCS can be designed into a resilience-oriented management control system (Weber et al., 2024).

Specifically, it shows the relationship between management accounting control systems, risk governance, and organizational resilience in public sector organizations. The study places



continuous planning, internal control, performance measurement, and risk management as interrelated elements in increasing resilience (Pham and Vu, 2025).

The findings expand the function of MCS from performance control to resilience infrastructure.

5.6 Risk Management and MCS Integration

The integration of risk management and management accounting control systems in public sector organizations is still not optimal (Bracci et al., 2022). Furthermore, it shows that performance management and risk management need to be understood as practices that can support each other when organizational actors are able to integrate them (Bracci et al., 2024).

Thus, an important research agenda is to develop a risk-oriented MCS, namely an MCS that incorporates risk information into planning, budgeting, performance measurement, strategic review, and decision making.

5.7 Digitalization as a New Condition of MCS

Digitalization changes the way information is collected, processed, and used in control. Business intelligence can support the integration of MCS and business process performance in public organizations (Elbashir et al., 2022). From the perspective of Contingency Theory, digitalization changes the information-processing capacity of organizations so that MCS design needs to adapt to technological capabilities and information uncertainty levels (Chenhall, 2003).

Thus, digital transformation is not just a technological variable, but can be a contingency factor that changes the relationship between MCS and performance.

THEORY INTEGRATION

Theory Integration

The results of the review show that there is no single theory that adequately explains the overall relationship between MCS and public sector performance.

- Contingency Theory explains when MCS is effective.
- Agency Theory explains why organizations need monitoring and accountability.
- Institutional Theory explains why organizations adopt certain control practices.
- Levers of Control explains how controls are used.
- Resource-Based View explains how MCS becomes an organizational resource.
- Dynamic Capabilities Theory explains how MCS helps organizations adapt.



- Public Value Theory explains for whom and for what purposes public sector performance should be produced.

The synthesis results in a conceptual framework:



The framework combines contingency, institutional, control package, capability-based, and public value approaches simultaneously.

RESEARCH PROPOSITIONS

Based on the results of the synthesis, this study develops the following proposition.

- P1

The higher the conformity between the MCS design and the characteristics of the public organizational environment, the higher the effectiveness of MCS in improving organizational performance. This proposition is based on Contingency Theory which places organizational fit as the main condition of control effectiveness (Chenhall, 2003; Otley, 1980).

- P2

The simultaneous use of diagnostic and interactive MCS has a stronger effect on organizational performance than the dominant use of diagnostics.



This proposition is based on the Levers of Control because diagnostic control maintains the achievement of targets while interactive control encourages learning and adaptation (Baird et al., 2023; Simons, 1995).

- P3

Organizational capabilities mediate the relationship between MCS and organizational performance.

This proposition is based on the Resource-Based View and Dynamic Capabilities Theory because MCS can provide the infrastructure to build resilience, flexibility, and organizational learning (Phan et al., 2023; Barney, 1991).

- P4

Institutional pressures moderate the relationship between MCS and organizational performance. This proposition is based on Institutional Theory because the adoption and use of MCS can be influenced by coercive, normative, and mimetic pressures (Modell, 2022; DiMaggio & Powell, 1983;).

- P5

The integration of risk management into MCS reinforces the influence of MCS on organizational resilience. This proposition is based on the findings of Bracci et al. (2022), Bracci et al. (2024), Weber et al. (2024), and Pham and Vu (2025).

- P6

Digital capability strengthens the relationship between MCS and organizational performance. This proposition is based on evidence that business intelligence can strengthen integrated management control and business process performance in public organizations (Elbashir et al., 2022).

- P7

Public value orientation extends the MCS–performance relationship from administrative performance to societal and citizen outcomes. This proposition is based on Public Value Theory which places public value as the primary goal of public organizations (Moore, 1995).

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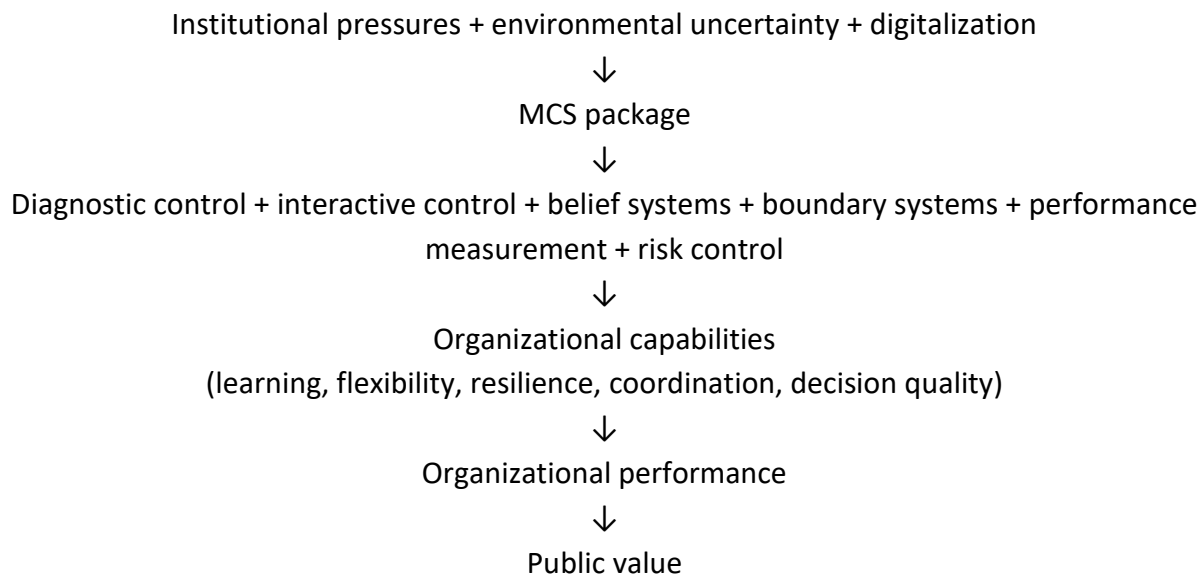
Contingency Theory explains when MCS is effective.

- Agency Theory explains why organizations need monitoring and accountability. Institutional Theory explains why organizations adopt certain control practices.



- Levers of Control explains how control is used. Resource-Based View describes how MCS becomes an organization's resource. Dynamic Capabilities Theory explains how MCS helps organizations adapt. Public Value Theory explains for whom and for what purposes public sector performance should be generated.

The synthesis results in a conceptual framework:



The framework combines contingency, institutional, control package, capability-based, and public value approaches simultaneously.

Based on the results of the synthesis, this study develops the following proposition.

- P1

The higher the compatibility between the MCS design and the characteristics of the public organizational environment, the higher the effectiveness of the MCS in improving organizational performance.

This proposition is based on Contingency Theory which places organizational fit as the main condition of control effectiveness (Chenhall, 2003; Otley, 1980).

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The simultaneous use of diagnostic and interactive MCS has a stronger effect on organizational performance than the dominant use of diagnostics.



This proposition is based on the Levers of Control because diagnostic control maintains the achievement of targets while interactive control encourages learning and adaptation (Baird et al., 2023; Simons, 1995).

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The integration of risk management into MCS reinforces MCS's influence on organizational resilience. This proposition is based on findings (Pham and Vu, 2025), (Bracci et al., 2024), (Weber et al., 2024), (Bracci et al., 2022).

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RESEARCH GAP AND RESEARCH AGENDA

Indonesia's research gap is very important because local research has shown that government internal control is related to performance and accountability, but most studies still separate internal control, accountability, information technology, and organizational

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commitment as separate variables (Safkaur et al., 2024; Rahmasari & Setiawan, 2022; Winarna et al., 2021;).

Thus, the contribution of future research is no longer just to test whether internal control has an effect on performance, but to test how the entire MCS package works through organizational capabilities to generate public value.

Table 2. Research Gap and Research Agenda

Research gap	Limitations of the literature	Research agenda
Fragmentation of theory	The research uses the theory separately	Multi-theoretical MCS model
Direct-effect bias	Many studies test MCS → performance	Mediation through capability
Risk-control separation	Risk management and MCS are often separate	Integrated risk-oriented MCS
Digitalization	Technology is often treated as a tool	Digital capability as a moderator
Institutional pressure	MCS adoption has not always been institutionally explained	Coercive, normative, mimetic pressures
Resilience	Public sector evidence is still limited	MCS → resilience → performance
Public value	Performance is often measured administratively	Citizen outcomes/public value
Indonesia	Evidence is still dominant in internal control	Integrated MCS package
Level of analysis	Lots of individual/organizational studies	Multilevel MCS research
Longitudinal evidence	Numerous cross-sectional studies	Longitudinal/quasi-experimental design



THEORETICAL IMPLICATIONS

Theoretically, this study shows that public sector MCS is more precisely explained through a combination of theories rather than a single-theory approach.

Contingency Theory explains environmental fit, Institutional Theory explains adoption and legitimacy, Levers of Control explains control use, Resource-Based View explains capability development, Dynamic Capabilities Theory explains adaptation, and Public Value Theory explains the final goal of public organizational performance.

Thus, the main conceptual contribution of this study is to shift the simple model:

MCS → Performance

become:

Institutional/Environmental Context → MCS Package → Organizational Capabilities → Performance → Public Value.

The model provides a more complete explanation of the mechanism for creating public sector performance.

PRACTICAL IMPLICATIONS

Managers of public organizations should not only increase the number of performance indicators because increasing the number of indicators does not automatically increase performance (Oppi et al., 2022; van der Kolk, 2022). Public organizations need to integrate performance measurement with strategic planning, budgeting, risk management, internal control, and decision making because a fragmented system can reduce the effectiveness of control (Bracci et al., 2022; Bracci et al., 2024).

Local governments also need to develop the use of interactive controls so that performance information is not only used for past evaluation but also for learning and adaptation to environmental changes (Baird et al., 2023; Simons, 1995).

Digital capabilities also need to be strengthened because the integration of business intelligence can improve the ability of organizations to use information for control and business process performance (Elbashir et al., 2022).



RESEARCH LIMITATIONS

The main limitation of this study is that the evidence base comes from verifiable literature through publisher sources, DOIs, and academic repositories, so this study cannot claim to be a census of all articles available on Scopus and the Web of Science. In addition, the 40 core articles include direct public sector research as well as general MCS research that has a theoretical contribution to explaining the public sector. This separation is necessary because direct evidence on public sector MCS is still relatively limited compared to the overall MCS literature (Felício et al., 2021).

The next limitation is the heterogeneity of research methods because the evidence base includes surveys, case studies, fsQCA, systematic review, and conceptual research. This heterogeneity makes quantitative meta-analysis inappropriate without harmonization of effect measures.

CONCLUSION

This Systematic Literature Review shows that MCS has an important role in improving the performance of public sector organizations, but the relationship is neither automatic nor linear. Contingency Theory shows that the effectiveness of MCS depends on the suitability of the system to the organizational context, while Agency Theory explains the need for monitoring and accountability (Chenhall, 2003; Otley, 1980; Jensen & Meckling, 1976). Levers of Control shows that effective MCS requires a balance between diagnostic control and interactive control so that organizations are able to maintain accountability while developing learning and adaptation (Baird et al., 2023; Simons, 1995).

Institutional Theory shows that some MCS practices can be adopted due to regulative, normative, and mimetic pressures, so the existence of a control system does not necessarily mean that the system is used substantively to improve performance (Modell, 2022; DiMaggio & Powell, 1983; Meyer & Rowan, 1977). The Resource-Based View and Dynamic Capabilities Theory further show that MCS can serve as an infrastructure to build organizational capabilities such as flexibility, learning, resilience, and decision quality (Weber et al., 2024; Barney, 1991; Phan et al., 2023). Recent evidence also suggests that the integration of MCS with risk management is increasingly important as public sector organizations face uncertainties and crises that cannot be



addressed with traditional performance measurement alone (Pham & Vu, 2025; Bracci et al., 2024; Bracci et al., 2022)

Thus, the main contribution of this research is to develop the understanding that public sector MCS should be positioned as an integrated management infrastructure that connects strategy, performance measurement, risk management, organizational capabilities, and public value. Future research especially needs to test the MCS model → organizational capabilities → organizational performance → public value with institutional pressures, environmental uncertainty, digital capability, and risk governance as contextual variables.

In the Indonesian context, the next empirical research can test the model in local governments using a combination of Contingency Theory, Institutional Theory, Levers of Control, Dynamic Capabilities Theory, and Public Value Theory so that MCS research does not stop at testing the relationship between internal control and performance directly.

REFERENCES

- Baird, K., Su, S., & Munir, R. (2023). The mediating role of levers of controls on the association between sustainable leadership and organisational resilience. *Journal of Management Control*, 34, 167–200. <https://doi.org/10.1007/s00187-023-00354-1>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Barros, R. S., & Ferreira, A. M. D. S. C. (2023). Management control systems and innovation: A case study grounded in institutional theory. *Journal of Management Control*, 34, 109–133. <https://doi.org/10.1007/s00187-023-00351-4>
- Bauer, P., & Greiling, D. (2025). Management controls for contributing to the promotion of sustainable development in public sector organizations—Status quo and further research. *Sustainable Development*, 33, 3246–3265. <https://doi.org/10.1002/sd.3292>
- Beuren, I. M., et al. (2023). Does environmental uncertainty drive the use of management control systems and innovation? *Business Process Management Journal*, 29(3), 671–689. <https://doi.org/10.1108/BPMJ-10-2022-0491>
- Bracci, E., Mouhcine, T., Tallaki, M., Rana, T., & Wickramasinghe, D. (2022). Risk management and management accounting control systems in public sector organizations: A systematic literature review. *Public Money & Management*, 42(6), 395–402. <https://doi.org/10.1080/09540962.2021.1963071>



- Bracci, E., Bruno, A., D'Amore, G., & Ievoli, R. (2024). The integration of performance management and risk management in the public sector: An empirical case. *Journal of Management Control*, 35, 137–163. <https://doi.org/10.1007/s00187-024-00369-2>
- Castelo, S. L., & Gomes, C. F. (2024). The role of performance measurement and management systems in changing public organizations: An exploratory study. *Public Money & Management*, 44(5), 399–406. <https://doi.org/10.1080/09540962.2023.2204400>
- Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28(2–3), 127–168. [https://doi.org/10.1016/S0361-3682\(01\)00027-7](https://doi.org/10.1016/S0361-3682(01)00027-7)
- Chowdhury, A., & Shil, N. C. (2022). Management control systems as the protagonist in public sector reforms: Observations from worldwide selected literature. *RUDN Journal of Public Administration*, 9(3), 302–315. <https://doi.org/10.22363/2312-8313-2022-9-3-302-315>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Elbashir, M. Z., Sutton, S. G., Arnold, V., & Collier, P. A. (2022). Leveraging business intelligence systems to enhance management control and business process performance in the public sector. *Meditari Accountancy Research*, 30(4), 914–940. <https://doi.org/10.1108/MEDAR-04-2021-1287>
- Felicio, T., Samagaio, A., & Rodrigues, R. (2021). Adoption of management control systems and performance in public sector organizations. *Journal of Business Research*, 124, 593–602. <https://doi.org/10.1016/j.jbusres.2020.10.069>
- Funck, E. K. (2025). Management control under post-NPM: Replacing performance evaluation with trust-based management. *Financial Accountability & Management*, 41(2), 346–363. <https://doi.org/10.1111/faam.12420>
- Gomez-Conde, J., Lopez-Valeiras, E., Rosa, F. S., et al. (2023). The effect of management control systems in managing the unknown: Does the market appreciate the breadth of vision? *Review of Managerial Science*, 17, 2769–2795. <https://doi.org/10.1007/s11846-022-00601-0>
- Haron, N. H., Alias, N., Tuan Mat, T. Z., Mohd Ali, M., & Johan, N. (2024). The role of management control system in mitigating corruption: The levers of control perspective. *Information Management and Business Review*, 16(3(I)), 166–173. [https://doi.org/10.22610/imbr.v16i3\(I\).3962](https://doi.org/10.22610/imbr.v16i3(I).3962)



- Husnan, L. H., Manan, A., Jufri, A., & Muhdin. (2023). Effects of government internal control system, accessibility financial report, local financial management transparency, local financial management accountability toward local government performance. *European Journal of Theoretical and Applied Sciences*, 1(6). [https://doi.org/10.59324/ejtas.2023.1\(6\).63](https://doi.org/10.59324/ejtas.2023.1(6).63)
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Král, M. (2022). 20-year history of performance measurement in the local public sector: A systematic review. *International Journal of Public Administration*, 45(9), 726–740. <https://doi.org/10.1080/01900692.2021.1891425>
- Maharani, R. (2021). The impact of management control on public sector organizations in Indonesia. *Indonesian Journal of Accounting and Finance*, 18(1). <https://doi.org/10.21002/jaki.2021.06>
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363. <https://doi.org/10.1086/226550>
- Mitter, C., Kuttner, M., Duller, C., et al. (2024). Does national culture impact management control systems? A systematic literature review. *Review of Managerial Science*, 18, 209–257. <https://doi.org/10.1007/s11846-023-00661-w>
- Modell, S. (2022). New developments in institutional research on performance measurement and management in the public sector. *Journal of Public Budgeting, Accounting and Financial Management*, 34(3), 353–369. <https://doi.org/10.1108/JPBAFM-04-2021-0070>
- Muhtar, M., Winarna, J., & Sutaryo, S. (2023). Internal control weakness and corruption: Empirical evidence from Indonesian local governments. *International Journal of Professional Business Review*, 8(6). <https://doi.org/10.26668/businessreview/2023.v8i6.1278>
- Nuhu, N. A., Baird, K., & Appuhami, R. (2019). The impact of management control systems on organisational change and performance in the public sector: The role of organisational dynamic capabilities. *Journal of Accounting & Organizational Change*, 15(3), 473–495. <https://doi.org/10.1108/JAOC-08-2018-0084>
- Oppi, C., Campanale, C., & Cinquini, L. (2022). Ambiguity in public sector performance measurement: A systematic literature review. *Journal of Public Budgeting, Accounting and Financial Management*, 34(3), 370–390. <https://doi.org/10.1108/JPBAFM-09-2020-0167>



- Otley, D. (1980). The contingency theory of management accounting: Achievement and prognosis. *Accounting, Organizations and Society*, 5(4), 413–428. [https://doi.org/10.1016/0361-3682\(80\)90040-9](https://doi.org/10.1016/0361-3682(80)90040-9)
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Pham, Q. H., & Vu, K. P. (2025). Management accounting control system and risk governance in public sector organizational resilience enhancement. *Cogent Social Sciences*, 11(1), 2444473. <https://doi.org/10.1080/23311886.2024.2444473>
- Phan, T., Baird, K., Bhuyan, M., & Tung, A. (2023). The associations between management control systems, organisational capabilities and performance. *Journal of Management Control*, 34(4), 435–462. <https://doi.org/10.1007/s00187-024-00365-6>
- Prayudi, M. A., Nurkholis, N., Saraswati, E., & Rusydi, M. K. (2023). Do vision and mission really matter? The management control experiences of reformed public hospitals in Indonesia. *International Journal of Professional Business Review*, 8(3). <https://doi.org/10.26668/businessreview/2023.v8i3.1092>
- Rahmasari, A., & Setiawan, D. (2022). Maturity of internal control system, the capability of internal auditors, and performance accountability in local governments. *Journal of State Financial Governance and Accountability*, 8(2), 159–176. <https://doi.org/10.28986/jtaken.v8i2.830>
- Rana, T., Steccolini, I., Bracci, E., & Mihret, D. G. (2022). Performance auditing in the public sector: A systematic literature review and future research avenues. *Financial Accountability & Management*, 38, 337–359. <https://doi.org/10.1111/faam.12312>
- Rosalina, K., & Jusoh, R. (2024). Levers of control, counterproductive work behavior, and work performance: Evidence from Indonesian higher education institutions. *SAGE Open*. <https://doi.org/10.1177/21582440241278455>
- Safkaur, O., Rombe, L., & Bleskadi, N. H. (2024). The influence of internal control systems, information technology utilization and organizational commitment on the performance of local government institutions. *Indonesian Journal of Education Research*, 10(1), 103–111. <https://doi.org/10.29210/020242388>
- Sari, D. N., & Darmastuti, D. (2023). Internal control weaknesses: Its relationship with local government characteristics and follow-up on audit results. *Indonesian Journal of Accounting and Auditing*, 27(1). <https://doi.org/10.20885/jaai.vol27.iss1.art10>



- Simons, R. (1995). *Levers of control: How managers use innovative control systems to drive strategic renewal*. Harvard Business School Press.
- Sofyani, H., Utami, T. P., & Yani, I. (2024). Management control system in higher education institutions and its role on performance: Does gender matter? *APPSAI Accounting Review*, 4(2). <https://doi.org/10.26418/apssai.v4i2.116>
- van der Kolk, B. (2022). Performance measurement in the public sector: Mapping 20 years of survey research. *Financial Accountability & Management*, 38(4), 703–729. <https://doi.org/10.1111/faam.12345>
- Vakkuri, J. (2022). PMM and beyond—Reflections on the paper "new developments in institutional research on performance measurement and management in the public sector." *Journal of Public Budgeting, Accounting and Financial Management*. <https://doi.org/10.1108/JPBAFM-12-2021-0168>
- Weber, M. M., Pedell, B., & Rötzel, P. G. (2024). Resilience-oriented management control systems: A systematic review of the relationships between organizational resilience and management control systems. *Journal of Management Control*, 35, 563–620. <https://doi.org/10.1007/s00187-024-00385-2>
- Winarna, J., Muhtar, M., Sutaryo, S., & Amidjaya, P. G. (2021). Government internal control system and local government administration performance: Evidence from Indonesian local governments. *Public Finance Quarterly*, 66(S2), 88–107. https://doi.org/10.35551/PFQ_2021_s_2_5

