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Factors Influencing Compliance Among Indonesian Construction Service Business Entities: A Systematic Literature Review

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Abstract

Compliance among Construction Service Business Entities (CSBEs) is essential for ensuring the delivery of safe, high-quality, and legally compliant construction projects while strengthening governance within the construction industry. Despite continuous regulatory reforms in Indonesia, maintaining consistent compliance among CSBEs remains a significant challenge due to the interaction of regulatory, organizational, and external factors. This study aims to identify and synthesize the factors influencing the compliance level of Indonesian Construction Service Business Entities through a Systematic Literature Review (SLR). The review followed the PRISMA 2020 guidelines and systematically searched publications indexed in Scopus, Web of Science, ScienceDirect, SpringerLink, Taylor & Francis Online, Emerald Insight, Google Scholar, Garuda, and SINTA published between 2015 and 2025. A total of 486 records were initially identified. After duplicate removal and eligibility screening, 52 studies met the inclusion criteria and were included in the qualitative synthesis. The selected studies were analyzed using content analysis and thematic synthesis to identify the dominant determinants of organizational compliance. The findings reveal nine principal factors influencing compliance, namely regulatory framework, government supervision and enforcement, human resource competency, organizational capacity, financial capability, information technology adoption, organizational culture, management commitment, and safety and environmental factors. Among these, regulatory quality, government supervision, human resource competency, and management commitment consistently emerged as the most influential determinants reported across the reviewed studies. This review provides a comprehensive conceptual framework that supports policymakers, researchers, and construction industry stakeholders in strengthening compliance strategies, improving governance systems, and enhancing the sustainability and competitiveness of Indonesia's construction sector.

Keywords: Construction Service Business Entities; Compliance; Construction Industry; Regulatory Compliance; Systematic Literature Review.

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INTRODUCTION

Construction services are a strategic sector that plays an essential role in supporting economic development, regional equity, and national competitiveness through the provision of high-

quality, safe, and sustainable infrastructure. Adequate infrastructure has been shown to have a positive relationship with economic growth, increased productivity, reduced logistics costs, and improved overall quality of life for society [1],[2]. Infrastructure

development in Indonesia has become one of the nation's strategic priorities, aimed at supporting economic transformation, enhancing interregional connectivity, and advancing the achievement of sustainable development goals. Furthermore, the expansion and modernization of infrastructure networks are expected to promote inclusive growth, improve public welfare, and contribute to long-term sustainable development by supporting social, economic, and environmental objectives [3]. The successful delivery of infrastructure development is highly dependent on the performance of Construction Service Business Entities (BUJK), which serve as the principal stakeholders in the execution of construction activities. These entities play a critical role throughout the entire project lifecycle, encompassing the planning, implementation, and supervision phases of construction projects. The strategic role of BUJK necessitates a high level of compliance with applicable laws and regulations, technical standards, quality management requirements, construction safety provisions, and principles of sound corporate governance. Business entity compliance is widely recognized as a critical determinant in fostering a professional, transparent, accountable, and competitive construction industry. Moreover, compliance serves not only as a legal obligation but also as a mechanism for ensuring project quality, safeguarding occupational health and safety, minimizing operational risks, and enhancing stakeholder confidence. Consequently, a strong compliance culture among BUJK is essential for improving industry performance and supporting the sustainable development of the construction sector [4],[5]. By ensuring adherence to regulatory requirements, technical specifications, quality standards, and safety protocols, compliant BUJK are better positioned to deliver projects efficiently, safely, and sustainably. Furthermore, strong compliance practices enhance organizational credibility, strengthen stakeholder trust, and support the achievement of project objectives in terms of cost, time, quality, and safety, thereby contributing to the overall resilience and competitiveness of the construction industry [6], [7].

In Indonesia, the implementation and governance of construction services are regulated under Law Number 2 of 2017 concerning Construction Services. This legislation serves as the principal legal framework governing the construction sector, establishing the rights, obligations, and responsibilities of stakeholders involved in construction activities. The law aims to promote a professional, reliable, and sustainable construction industry by strengthening business entity governance, enhancing workforce competency, improving construction safety standards, and ensuring compliance with applicable regulations. Furthermore, the enactment of this law reflects the government's commitment to improving the quality, accountability, and competitiveness of the national construction industry in supporting sustainable infrastructure development and economic growth [8]. The law emphasizes that the implementation of construction services must promote orderly construction practices, enhance compliance with applicable laws and regulations, and ensure the safety, security, health, and sustainability of construction activities. These objectives are intended to establish a robust regulatory environment that supports the delivery of high-quality, reliable, and sustainable infrastructure projects.

The regulatory framework has been further strengthened through Government Regulation Number 14 of 2021 concerning Amendments to Government Regulation Number 22 of 2020 on the Implementation of the Construction Services Law. This regulation provides comprehensive provisions governing risk-based business licensing, business entity certification, certification of construction workforce competencies, the development of construction service information systems, and mechanisms for the guidance, supervision, and enforcement of compliance among construction service providers. Through these regulatory instruments, the Indonesian government seeks to enhance governance, improve industry professionalism, strengthen institutional accountability, and ensure that construction activities are conducted in accordance with established technical, safety, environmental, and administrative standards [9].

As part of broader bureaucratic reform initiatives and efforts to improve the ease of doing business, the Indonesian government has implemented a Risk-Based Business Licensing system through the Online Single Submission Risk-Based Approach (OSS-RBA), as mandated by Law Number 6 of 2023 concerning the Enactment of Government Regulation in Lieu of Law Number 2 of 2022 on Job Creation into Law. This regulatory framework adopts a risk-based approach to business licensing, whereby licensing requirements, government oversight, and compliance obligations are determined according to the level of risk associated with specific business activities.

Furthermore, effective supervision by regulatory authorities, coupled with clear regulatory frameworks and appropriate enforcement mechanisms, plays a critical role in fostering compliance and reducing the likelihood of non-compliant behavior among business entities [10], [11]. Moreover, the construction industry is characterized by significant uncertainties related to technical, financial, environmental, and occupational safety risks. Therefore, understanding the determinants of compliance within construction service business entities is essential for enhancing project success, improving industry governance, and supporting the sustainable development of the construction sector [12].

Several previous studies have identified regulatory quality, the effectiveness of government oversight, workforce competency, corporate financial capacity, the adoption of information technology, and occupational safety culture as significant determinants of compliance levels among construction business entities. These factors collectively influence an organization's ability to understand, implement, and consistently adhere to applicable regulatory requirements, technical standards, and industry best practices.

Collectively, these factors contribute to the development of a compliance-oriented organizational environment that supports sustainable business performance and

strengthens governance within the construction industry [13]. The detailed composition of BUJK classifications in Indonesia is illustrated in the figure below.

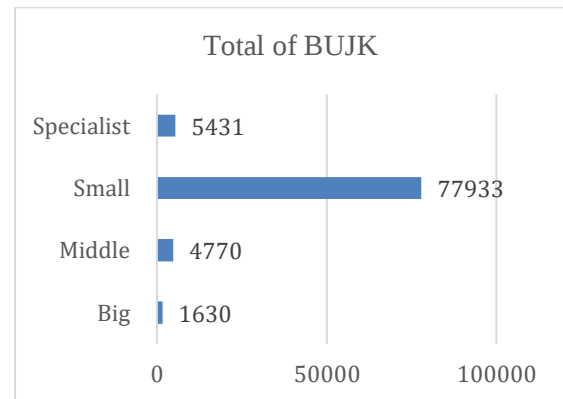


Figure 1. Total of BUJK

Figure 1 presents the classification of BUJK in Indonesia into four categories, namely large, medium, small, and specialist entities. The distribution clearly demonstrates the predominance of small-scale BUJK within the national construction sector, highlighting the significant role of small enterprises in the industry structure. Meanwhile, the number of large-scale BUJK is relatively limited, totaling 1,630 entities or approximately 1.8% of all registered construction business entities in Indonesia.

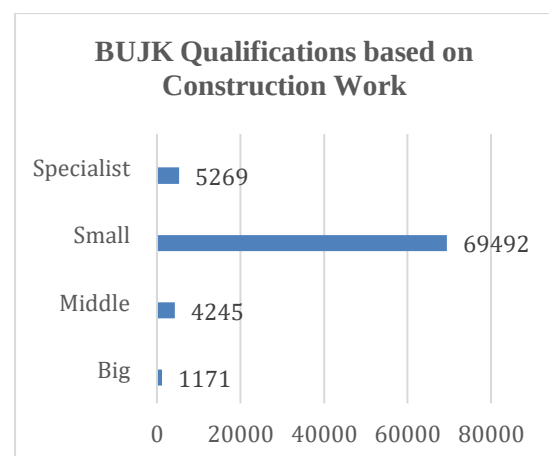


Figure 2. BUJK Qualification base in Construction Work

As presented in Figure 2, the construction works sector comprises 1,171 big qualified BUJK. This finding reflects the relatively

limited number of large-scale firms compared to the overall population of registered construction business entities in Indonesia, despite their strategic role in executing complex and high-value construction projects.

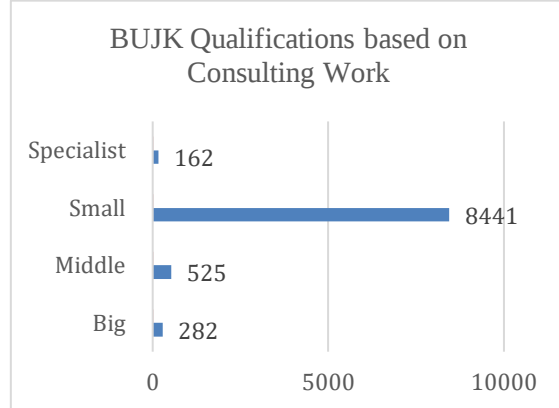


Figure 3. BUJK Qualification base in Consulting Work

As shown in Figure 3, the consultancy services sector comprises 282 large-qualified BUJK. Compared with the construction works sector, this figure reflects the relatively smaller number of large-scale business entities engaged in consultancy activities, highlighting the distinct structural composition of Indonesia's construction services industry.

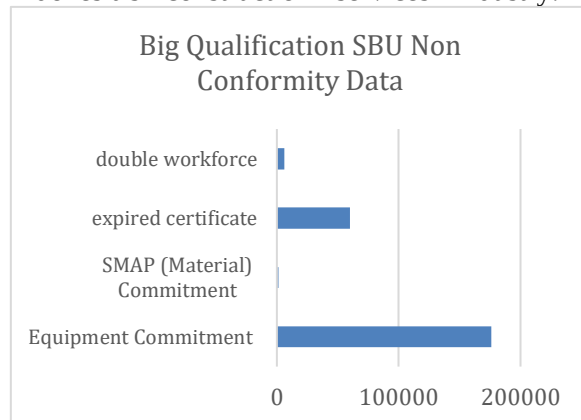


Figure 4. Big qualification SBU non conformity

As illustrated in Figure 4, large-qualified BUJK account for a considerable proportion of certificates identified as non-compliant. Nevertheless, these entities remain strategically important within the construction sector, as they are responsible for undertaking a significant share of large and complex

construction projects. The primary cause of the identified non-compliance is associated with the failure to meet equipment commitments, particularly regarding the availability and deployment of construction equipment as specified in project contractual and certification requirements.

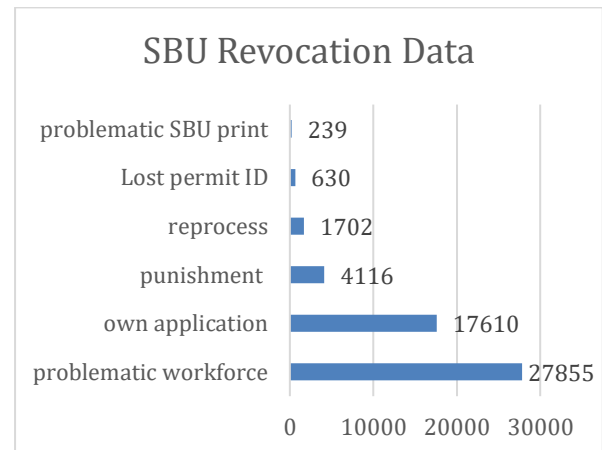


Figure 5. SBU Revocation Data

As shown in Figure 5, certificate revocations occur for various reasons, reflecting challenges in maintaining compliance with regulatory and certification requirements. Human resource-related non-compliance emerges as the primary factor contributing to certificate revocation, indicating the critical importance of maintaining qualified and competent personnel as stipulated by the applicable regulatory framework. The second most prevalent cause is revocation based on the business entities' own applications, suggesting organizational, operational, or strategic considerations that lead firms to voluntarily relinquish their certification status. These findings underscore the pivotal role of human resource capacity in sustaining regulatory compliance among BUJK.

Based on these conditions, a more systematic investigation is required to identify and synthesize the various factors influencing the compliance level of BUJK in Indonesia. Through a comprehensive literature review approach, this study aims to examine the determinants that contribute to organizational compliance behavior, encompassing regulatory frameworks, government supervision, organizational capacity, human resource

competency, information technology adoption, and other external environmental factors.

Although previous studies have investigated regulatory compliance in the construction industry, most have focused on specific aspects such as occupational safety, business licensing, workforce competency, corporate governance, or regulatory enforcement independently. Existing studies generally examine compliance from a single perspective and provide fragmented evidence regarding the determinants of compliance among Construction Service Business Entities (BUJK). Moreover, there remains a lack of comprehensive literature that systematically integrates organizational, regulatory, technological, financial, and environmental factors into a unified conceptual framework, particularly within the context of Indonesia's construction services sector. This limitation makes it difficult for policymakers and industry stakeholders to obtain a holistic understanding of the multidimensional nature of organizational compliance.

2. METHOD

This study employs a Systematic Literature Review (SLR) approach to identify, evaluate, classify, and synthesize the factors influencing the compliance level of BUJK in Indonesia. The SLR method was selected because it provides a rigorous, transparent, and replicable framework for reviewing existing knowledge, while minimizing potential biases in the identification, selection, and analysis of relevant literature compared with conventional narrative review approaches. Synthesizing the available evidence, this study seeks to establish a comprehensive conceptual foundation for understanding the determinants of compliance in the Indonesian construction industry and to support the formulation of more effective regulatory, supervisory, and capacity-building strategies [15], [16].

2.1 Research Design

The study was conducted through six principal stages: (1) formulation of the research questions, (2) identification of relevant literature sources, (3) establishment of inclusion and exclusion criteria, (4) article screening and selection, (5) data extraction, and (6) analysis and synthesis of the findings. These stages were developed in accordance with the systematic literature review framework proposed by Tranfield et al. (2003) and further refined using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. The adoption of these methodological standards ensures a rigorous, transparent, and reproducible review process, thereby enhancing the reliability and validity of the study findings [17], [18].



Figure 6. Research Flow

Figure 6 illustrates the research flow adopted in this study, which consists of six sequential stages. The systematic review was guided by the following research questions:

1. What factors influence the compliance level of BUJK?
2. Which factors have been identified as the most significant determinants of BUJK compliance according to previous studies?
3. What are the implications of these factors for the development of regulatory, capacity-building, and supervisory policies within Indonesia's construction services sector?

2.2 Data Sources and Literature Retrieval Strategy

The study data were obtained from international and national journal articles, conference proceedings, scholarly books, research reports, and regulatory documents

related to the compliance of BUJK. Relevant literature was retrieved from several reputable databases, including Scopus, Web of Science, ScienceDirect, SpringerLink, Taylor & Francis Online, Emerald Insight, Google Scholar, Garuda, and SINTA.

The literature search was conducted using a combination of keywords and Boolean operators to ensure comprehensive coverage of the relevant studies. The primary search terms included: *"construction business entity compliance," "construction services compliance," "organizational compliance," "regulatory compliance," "construction industry regulation," "business licensing compliance," "risk-based business licensing," "construction service business entity (BUJK)," "government supervision," "compliance determinants," "organizational capacity," "human resource competency," "information technology adoption," "construction governance,"* and *"construction industry regulation in Indonesia."*

To improve search accuracy and relevance, the keywords were combined using Boolean operators such as AND, OR, and NOT. The search strategy was designed to capture both international and Indonesian studies addressing the factors influencing compliance behavior within the construction services sector. The literature reviewed in this study was limited to publications issued between 2015 and 2025 to ensure relevance to contemporary developments in construction regulations, governance practices, and compliance requirements. The inclusion criteria were established as follows:

1. The study addresses organizational or business entity compliance within the construction sector.
2. The study is published in a peer-reviewed indexed journal or a reputable scientific conference proceeding.
3. The publication is available in either English or Indonesian.
4. The study identifies, examines, or discusses factors influencing business entity compliance.
5. The document consists of regulatory frameworks, policies, or legal instruments

related to the governance of construction services in Indonesia.

To ensure the quality and relevance of the reviewed literature, the following exclusion criteria were applied:

1. Studies that do not address organizational or business entity compliance.
2. Publications for which the full text is not accessible.
3. Duplicate publications identified during the screening process.
4. Studies that are not directly related to the construction sector.

2.3 Literature Selection Process

The literature selection process was performed following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. The PRISMA framework provides a structured and transparent approach for identifying, screening, assessing eligibility, and selecting relevant studies, thereby enhancing the rigor, reliability, and reproducibility of the systematic review process [17]. The literature identification and selection process was conducted following the PRISMA 2020 framework to ensure transparency and reproducibility throughout the review. An initial search across the selected electronic databases identified 486 records. After removing 54 duplicate records, 432 publications remained for title and abstract screening. Based on the predefined inclusion and exclusion criteria, 285 records were excluded because they were unrelated to the research topic, published outside the specified period, or did not focus on organizational compliance within the construction sector. The remaining 147 articles underwent full-text eligibility assessment. During this stage, 95 articles were excluded due to insufficient methodological quality, limited relevance to the research objectives, or incomplete publication information. Consequently, 52 studies satisfied all eligibility criteria and

were included in the final qualitative synthesis.

To ensure the credibility and quality of the reviewed evidence, each eligible study was subjected to a quality assessment prior to data extraction. The assessment considered several criteria, including publication quality, methodological rigor, relevance to the research objectives, clarity of research findings, and contribution to understanding compliance within the construction services sector. Only studies that satisfied these quality criteria were retained for further analysis, thereby enhancing the reliability and validity of the systematic review findings.

Data extraction was performed systematically using a standardized extraction form. Information collected from each selected publication included author, publication year, country of study, research objective, methodology, sample characteristics (where applicable), principal findings, and the compliance factors identified. The extracted information was subsequently organized and synthesized to identify recurring themes, similarities, differences, and research trends across the reviewed studies.

Table 1. Summary of Literature Selection

Stage	Number of Articles
Initial identification	486
Duplicate removal	54
Records screened	432
Full-text assessed	147
Final studies included	52

2.4. Data Analysis Techniques

Data analysis was conducted using a combination of content analysis and thematic analysis techniques. Each study that met the inclusion criteria was systematically reviewed and coded to identify factors influencing the compliance level of Construction Service Business Entities (BUJK). Relevant information was extracted from each publication and analyzed to determine the key determinants of organizational compliance within the construction sector.

The identified factors were subsequently categorized based on conceptual similarity, frequency of occurrence across the reviewed studies, and their relevance to compliance behavior. This process enabled the consolidation of diverse findings into a coherent analytical framework and facilitated the identification of recurring themes within the literature.

Based on the synthesis of the reviewed evidence, the factors influencing the compliance level of BUJK were classified into nine principal categories. These categories represent the dominant dimensions consistently identified in the literature as determinants of organizational compliance and provide a comprehensive framework for understanding compliance behavior within the construction services sector:

1. Regulation

The synthesis of the literature revealed that the determinants of BUJK compliance can be grouped into nine major categories. These categories represent the most frequently reported and theoretically significant dimensions influencing organizational compliance and collectively provide a

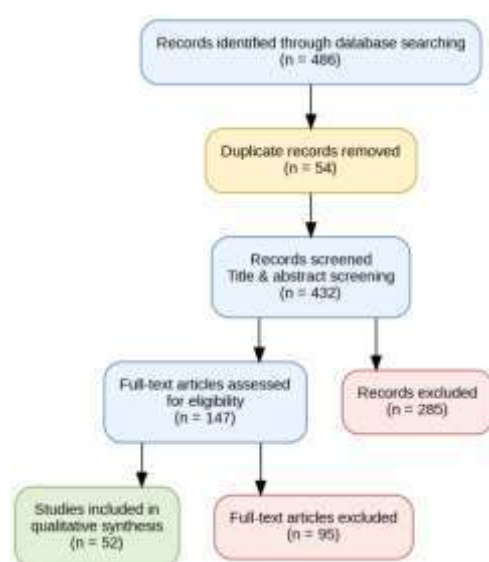


Figure 7. PRISMA 2020 Literature Selection Process

comprehensive framework for understanding compliance behavior in the construction industry. The resulting framework also serves as a foundation for future empirical studies and the development of compliance assessment models, regulatory policies, and digital-based monitoring systems aimed at improving governance and accountability within the construction services sector [2],[10].

2. Government Supervision and Enforcement

Effective government oversight plays a significant role in shaping organizational compliance behavior, as it increases the perceived risks and potential consequences associated with non-compliance. A robust supervisory framework not only enhances regulatory enforcement but also encourages organizations to adhere to established standards and legal requirements, thereby fostering higher levels of compliance within the construction services sector [11], [19].

3. Human Resources Competency

A high level of competency contributes significantly to a better understanding of regulatory requirements and enhances an organization's ability to comply with applicable standards and obligations. Competent human resources are essential for ensuring the effective implementation of regulatory provisions, maintaining operational quality, and supporting overall organizational compliance within the construction services sector[20].

4. Organization Capacity

Organizational capacity reflects a company's ability to manage resources, implement effective management systems, maintain sound organizational governance, and coordinate operational processes efficiently. Organizations with greater capacity are generally more capable of allocating the financial, human, and technical resources required to comply with regulatory obligations. As a result, stronger organizational capacity is associated with higher levels of compliance, as it enables firms to effectively implement regulatory requirements, monitor compliance

performance, and adapt to evolving legal and administrative frameworks [5].

5. Financial Capability

Financial capability significantly influences a company's ability to meet certification requirements, provide workforce training, implement construction safety measures, and invest in technological advancements. Adequate financial resources enable organizations to allocate the necessary investments to maintain compliance with regulatory standards and industry requirements. Conversely, financial constraints often constitute a major barrier to compliance, limiting an organization's capacity to fulfill regulatory obligations and sustain continuous improvement initiatives [6], [12].

6. Information Technology

The utilization of information technology, digitalized licensing systems, and management information systems contributes significantly to improving transparency, administrative efficiency, and the ease of regulatory compliance. These technological advancements facilitate more effective data management, streamline administrative procedures, and reduce the complexity associated with fulfilling regulatory requirements. Consequently, the adoption of digital technologies enhances the ability of business entities to comply with applicable regulations in a timely and efficient manner [2], [14].

7. Organization Culture

Organizational culture refers to the shared values, norms, beliefs, and behavioral patterns that shape decision-making and operational practices within an organization. A strong culture of compliance and safety encourages employees and management to adhere consistently to regulatory requirements, organizational policies, and operational standards. Such a culture fosters accountability, ethical conduct, and continuous commitment to regulatory obligations, thereby contributing to higher levels of organizational compliance [13].

8. Commitment Management

Top management commitment plays a pivotal role in driving the implementation of compliance policies across all levels of the organization. The support and active involvement of corporate leadership have been consistently identified as key determinants of the successful implementation of corporate governance practices and compliance management systems. Through the establishment of strategic priorities, allocation of resources, and reinforcement of compliance-oriented values, top management influences organizational behavior and strengthens adherence to regulatory requirements. Consequently, strong leadership commitment contributes significantly to the effectiveness of compliance programs and the overall governance performance of the organization [10], [12].

These external environmental forces play a significant role in shaping organizational behavior and compliance practices within the construction sector. A supportive external environment encourages business entities to strengthen their adherence to safety regulations, quality standards, and other regulatory requirements. Consequently, external pressures and stakeholder expectations serve as important drivers of organizational compliance and continuous performance improvement [7], [12], [20].

3. RESULT AND DISCUSSION

Based on the literature selection process conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology, a substantial body of literature was identified addressing organizational compliance, regulatory compliance, construction safety, corporate governance, risk management, and business entity compliance within the construction sector. The synthesis of the selected studies revealed that the factors influencing the compliance level of Construction Service Business Entities (BUJK) can be classified into nine principal categories: regulatory frameworks, government supervision, human

resource competency, organizational capacity, financial capability, information technology adoption, organizational culture, management commitment, and construction safety and external environmental factors.

These findings provide a comprehensive conceptual foundation for understanding compliance behavior among construction business entities and offer valuable insights for the development of evidence-based policies, compliance assessment frameworks, and digital monitoring systems aimed at strengthening governance and regulatory effectiveness within Indonesia's construction industry [10], [11].

These findings underscore the importance of adopting a comprehensive approach to compliance management that integrates effective regulatory frameworks, competent human resources, robust supervisory mechanisms, and strong managerial commitment to promote sustainable compliance performance within the construction services sector [21]. As a result, information technology has become an increasingly important enabler of accountability, operational efficiency, and regulatory adherence among construction business entities [14].

Although the reviewed studies differ in terms of geographical context, research methodology, and industrial setting, several consistent patterns emerge. Most studies emphasize that organizational compliance is influenced not by a single determinant but by the interaction of multiple internal and external factors. Regulatory quality and government supervision are frequently identified as the primary external drivers of compliance, whereas organizational capacity, human resource competency, management commitment, and organizational culture represent the dominant internal determinants. These findings suggest that effective compliance management requires an integrated governance approach that simultaneously strengthens regulatory systems and organizational capabilities.

Interestingly, several studies report that regulatory enforcement alone does not necessarily guarantee higher compliance levels. Organizations with limited financial resources, inadequate managerial commitment, or insufficient workforce competency often experience difficulties in implementing regulatory requirements despite operating within a well-established regulatory framework. This finding indicates that strengthening compliance requires a balanced strategy combining regulatory enforcement with organizational capacity development, technical assistance, and continuous competency improvement.

3.1 Regulation

The findings underscore the importance of developing a regulatory environment that balances accountability and oversight with clarity, consistency, and administrative efficiency. In the context of the construction services sector, improving regulatory quality is essential for strengthening compliance performance, reducing unnecessary compliance costs, and fostering a more transparent, competitive, and sustainable industry[10].

These findings suggest that regulatory modernization should be accompanied by effective capacity-building programs, technical assistance initiatives, and accessible digital support systems to ensure that construction business entities, particularly small and medium-sized firms, can successfully adapt to the evolving regulatory environment and maintain compliance with applicable standards and obligations[2].

In this regard, effective regulation extends beyond the mere imposition of legal requirements and sanctions; it also involves providing clear guidance, facilitating compliance, and fostering constructive interactions between regulators and regulated parties. The findings of this study suggest that enhancing regulatory clarity, accessibility, and implementation support is essential for improving compliance levels among BUJK, particularly in a rapidly evolving regulatory environment [19].

3.2 Government Enforcement Supervision

The literature further suggests that organizations are more likely to comply with regulatory requirements when they perceive a higher probability of oversight and enforcement. Regular inspections and audits not only serve as mechanisms for identifying violations but also provide opportunities for guidance, corrective action, and continuous improvement. In addition, the consistent application of sanctions for non-compliance enhances the credibility of regulatory frameworks and deters opportunistic behavior. Consequently, government supervision plays a pivotal role in promoting regulatory compliance, improving governance practices, and ensuring the effective implementation of policies within the construction services sector [11].

Such balanced regulatory strategies enable organizations to better understand regulatory requirements, strengthen their compliance capabilities, and address potential deficiencies before violations occur. This evidence supports the view that sustainable compliance is more likely to be achieved through a combination of regulatory guidance, institutional support, and proportionate enforcement rather than through punitive measures alone [19].

3.3. Human Resources Competency

The literature also highlights that continuous professional development, training programs, and certification schemes play a crucial role in strengthening compliance capabilities. In the construction services sector, where regulatory requirements are often complex and continuously evolving, the availability of qualified and competent personnel is essential for ensuring sustainable compliance and effective organizational governance [20].

Empirical evidence further supports the importance of workforce competency in promoting compliance. For example, Hwang et al. (2022) reported that organizations employing certified and professionally qualified personnel tend to demonstrate higher levels of compliance with construction safety regulations and quality management

requirements. These findings underscore the strategic importance of workforce certification and competency development programs as mechanisms for strengthening organizational compliance and improving overall performance within the construction services sector[12].

These findings suggest that enhancing workforce competency through continuous training, professional certification programs, and institutional capacity development represents an effective strategy for improving compliance among BUJK. Such initiatives strengthen the knowledge, technical skills, and professional capabilities of personnel, thereby enabling organizations to better understand and fulfill regulatory requirements, technical standards, and industry best practices.

3.4. Organization capacity

Love et al. (2018) argued that companies with sound financial conditions are more capable of dedicating sufficient resources to compliance initiatives than organizations facing capital constraints. This finding highlights the importance of financial capability as an enabling factor for effective compliance management. Within the construction services sector, strong financial performance not only supports operational sustainability but also enhances an organization's ability to comply with regulatory standards, maintain certification requirements, and continuously improve governance and safety practices[6]. Consequently, strengthening organizational capacity is essential for improving compliance performance and enhancing overall organizational effectiveness within the construction services sector[5].

3.5. Information Technology

The literature increasingly recognizes digital transformation as a strategic enabler of regulatory compliance, as it strengthens governance mechanisms, enhances accountability, and supports evidence-based decision-making. Within the construction services sector, the effective utilization of information technology can significantly improve regulatory adherence, optimize

administrative performance, and contribute to the development of a more transparent and sustainable industry environment [14].

Consistent with the principles of digital governance, the literature suggests that the adoption of information technology can significantly reduce compliance costs, improve transparency in business processes, and strengthen organizational accountability. Digital platforms enhance the accessibility, accuracy, and traceability of regulatory information, thereby reducing information asymmetries between regulators and regulated entities. Consequently, digital governance mechanisms not only improve administrative efficiency but also foster higher levels of regulatory compliance, transparency, and institutional trust within the construction services sector[2].

3.6. Organization Culture and Organization Commitment

Consequently, the interaction between organizational culture and management commitment plays a pivotal role in fostering sustainable compliance and strengthening overall organizational governance within the construction services sector[22].

Empirical evidence supports the significance of leadership commitment in promoting organizational compliance. Hwang et al. (2022) found that companies receiving strong support from top management tend to demonstrate higher levels of compliance than organizations that regard compliance solely as an administrative requirement. This finding suggests that effective compliance management requires not only formal policies and procedures but also sustained leadership engagement and organizational commitment. Consequently, top management commitment is widely recognized as a key determinant of successful governance, regulatory adherence, and long-term organizational sustainability within the construction services sector[12].

3.7. Safety and Environment

Choudhry et al. (2018) argued that the establishment of a strong safety culture

significantly enhances compliance with safety standards and regulations while substantially reducing the incidence of workplace accidents. A well-developed safety culture promotes shared values, attitudes, and behaviors that prioritize safety in all organizational activities, thereby encouraging workers and management to consistently adhere to established safety procedures and best practices.

Furthermore, organizations that foster a proactive safety culture are generally more effective in identifying potential hazards, implementing preventive measures, and ensuring continuous compliance with occupational health and safety requirements. Consequently, safety culture is increasingly recognized as a strategic factor that not only improves safety performance but also strengthens overall organizational compliance and contributes to the sustainable success of construction projects[13].

The construction services sector, external pressures arising from clients, industry associations, competitors, and regulatory authorities can encourage business entities to strengthen their compliance practices and adopt higher standards of governance, safety, and quality management. Consequently, the institutional environment serves as an important catalyst for organizational compliance, influencing both the motivation and capacity of firms to adhere to regulatory and professional requirements while sustaining their long-term competitiveness and legitimacy[21].

3.8. Conceptual Model dominant Factor

Based on the synthesis of the reviewed literature, the dominant factors influencing the compliance level of BUJK can be formulated into the following conceptual model:



Figure 8. factor Influencing

The proposed conceptual model demonstrates that compliance among Construction Service Business Entities (BUJK) is the result of dynamic interactions among regulatory, organizational, and technological factors. Regulatory frameworks function as external control mechanisms that establish the legal and institutional requirements governing business operations. Accordingly, improving the compliance level of Construction Service Business Entities requires a holistic and integrated approach that extends beyond regulatory enforcement alone. Such an approach should encompass regulatory simplification, strengthened government supervision, workforce competency development, the digitalization of construction service administration, and the cultivation of a sustainable compliance culture.

The findings of this review have important implications for both policy and practice. For policymakers, the identified determinants provide a useful basis for designing more effective compliance policies, strengthening supervisory mechanisms, and improving the implementation of risk-based licensing systems. For construction service business entities, the results emphasize the importance of investing in workforce competency, digital transformation, organizational governance, and leadership commitment to achieve sustainable compliance. Furthermore, the proposed conceptual framework may serve as a theoretical reference for future empirical studies employing Structural Equation Modeling (SEM), Interpretive Structural Modeling (ISM), or Multi-Criteria Decision-Making (MCDM) approaches.

Table 3. Frequency of Compliance Factors Identified in Previous Studies

Compliance Factor	Number of Studies	Percentage (%)
Regulatory Framework	45	86.5
Government Supervision	41	78.8
Human Resource Competency	39	75.0

Organizational Capacity	35	67.3
Financial Capability	31	59.6
Information Technology	29	55.8
Organizational Culture	27	51.9
Management Commitment	25	48.1
Safety & Environment	22	42.3

Table 3 summarizes the frequency with which each compliance factor was identified across the reviewed studies. Regulatory framework emerged as the most frequently reported determinant, followed by government supervision, human resource competency, and organizational capacity. These findings indicate that compliance among Construction Service Business Entities is influenced by the interaction of external regulatory mechanisms and internal organizational capabilities. Although technological adoption, organizational culture, management commitment, and safety-related factors were reported less frequently, they remain important supporting elements that strengthen sustainable compliance performance. Overall, the synthesis demonstrates that improving compliance requires a comprehensive approach integrating regulatory improvement, organizational development, workforce competency enhancement, and digital transformation.

CONCLUSION

This study systematically reviewed the existing literature to identify the key factors influencing compliance among Construction Service Business Entities (CSBEs). Following the PRISMA 2020 framework, 52 eligible studies published between 2015 and 2025 were synthesized, resulting in the identification of nine major compliance factors. Among these, regulatory framework, government supervision, human resource competency, and organizational capacity emerged as the most influential determinants consistently reported across previous studies.

The findings contribute to the existing body of knowledge by providing an integrated conceptual understanding of compliance determinants within the construction services sector. Unlike previous studies that generally examined individual compliance factors separately, this systematic review consolidates diverse empirical evidence into a comprehensive framework that highlights the interaction between external regulatory mechanisms and internal organizational capabilities. Consequently, the study offers a stronger theoretical foundation for future empirical investigations and policy development.

From a practical perspective, the identified factors provide useful guidance for government agencies, regulators, and construction service business entities in designing more effective compliance improvement strategies. Strengthening regulatory quality, enhancing supervisory systems, improving workforce competency, reinforcing organizational governance, and accelerating digital transformation are expected to contribute significantly to sustainable compliance performance.

Nevertheless, this study has several limitations. First, the review included only articles published between 2015 and 2025 and written in English or Indonesian. Second, the synthesis was limited to publications retrieved from selected electronic databases. Third, the findings are based on qualitative evidence synthesis rather than statistical meta-analysis. These limitations may restrict the generalizability of the results.

Future research is encouraged to validate the proposed conceptual framework using quantitative approaches such as Structural Equation Modeling (SEM), Interpretive Structural Modeling (ISM), Analytic Hierarchy Process (AHP), or other multi-criteria decision-making techniques. In addition, comparative studies involving different countries and construction sectors would further enrich the understanding of organizational compliance and support the development of more adaptive regulatory policies.

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