A Review of BIM Maturity in Standards and Guidelines Across Asia

Mayurachat Chatsuwan, chatsuwan-mayurachat@ed.tmu.ac.jp
Department of Architecture and Building Engineering, Tokyo Metropolitan University, Japan

Benyatip Manajitt, benyatip.manajitt@aurecongroup.com
Aurecon Consulting (Thailand) Co., Ltd., Thailand

Assoc. Prof. Masayuki Ichinose, PhD, ichinose@tmu.ac.jp
Department of Architecture and Building Engineering, Tokyo Metropolitan University, Japan

Haitham Alkhalaf, PhD, haitham@tmu.ac.jp
Department of Architecture and Building Engineering, Tokyo Metropolitan University, Japan

Abstract
This study reviews BIM standards across several Asian countries, focusing on those with strong government and professional support, particularly in Singapore, Hong Kong, South Korea, and the United Arab Emirates. These countries have made significant progress in implementing BIM Level 3, aligning with ISO 19650 to enhance industry-wide data sharing and collaboration. The study examines the development of BIM standards, the factors driving BIM adoption, and the importance of aligning regional approaches with global standards. The findings highlight variations in BIM standards due to differing cultural and regulatory contexts. The study concludes that effective BIM adoption is driven by government initiatives, professional support, and strategic industry integration, with alignment to international standards being crucial for seamless cross-border BIM integration and improved efficiency in the construction sector.

Keywords: Building Information Modeling (BIM), BIM Level 3, BIM Standards and Guidelines, ISO 19650, Asia BIM Adoptions.

1 Introduction
Recently, BIM Level 3 has emerged as the highest level of BIM maturity, representing a significant advancement in construction and project management. It fosters complete collaboration and seamless integration of project information among all stakeholders, who work collaboratively with a shared project model. BIM Level 3 supports the use of a CDE for managing and disseminating project data, ensuring real-time access and coordination. Industry Foundation Classes (IFC), developed by buildingSMART, ensure interoperability between different software systems and platforms. BIM Level 3 covers the entire lifecycle of a building project, from design to operation and maintenance, ensuring consistent information management. Compliance with the ISO 19650 series of standards provides a structured framework for managing information throughout a building's lifecycle (McPartland, 2014). Conceptualised in early 2017, BIM Level 3 enhances decision-making, reduces errors, and boosts project efficiency. The UK Government's Level 3 Strategic Plan emphasises developing an 'Open Data' standard for global data sharing, innovative contractual frameworks, and training public sector clients in BIM techniques (H M Government, 2015). This study explores the development of BIM standards across Asia, with a particular focus on the adoption of BIM Level 3 principles. It reviews the progress made in various Asian countries, analyses their readiness for BIM Level 3, and examines the impact of these developments within diverse cultural and regulatory contexts. The study discusses the strategies employed by Asian countries to adopt BIM Level 3, emphasizing the importance of customizing international standards to enhance local effectiveness and prepare for future advancements.

This sets the stage for a detailed examination of BIM's transformative impact on Asia's construction industry.

2 Research Methodology

This study explores the development of BIM maturity standards and guidelines across Asian countries, with a focus on timelines and the adoption of BIM Level 3, characterized by interoperability through openBIM, IFC, and collaboration via CDE and ISO 19650.The research targets national efforts in countries with significant government and professional involvement in BIM standardisation. Data were collected from national guidelines, news articles, academic research, public announcements, and social media.

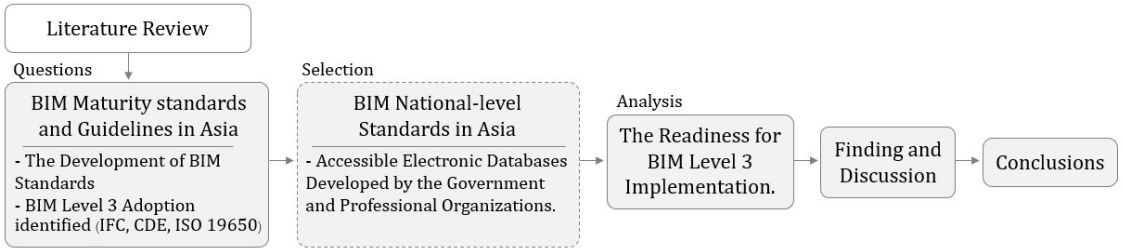

Figure 1. The methodology of this study.

Ten countries were selected based on the availability of accessible data that met the study's criteria. These countries reference key aspects of BIM Level 3, which are analysed to assess readiness for implementation and the factors driving BIM adoption in alignment with international standards.

3 BIM standards across Asia

BIM standards began with the General Services Administration (GSA) in the United States in 2003, becoming mandatory for major GSA projects by 2007. This established a foundational standard for BIM practices. Following this, various Asian countries developed their own BIM standards to align with their specific regulations and cultural practices (Hagan S., 2009).

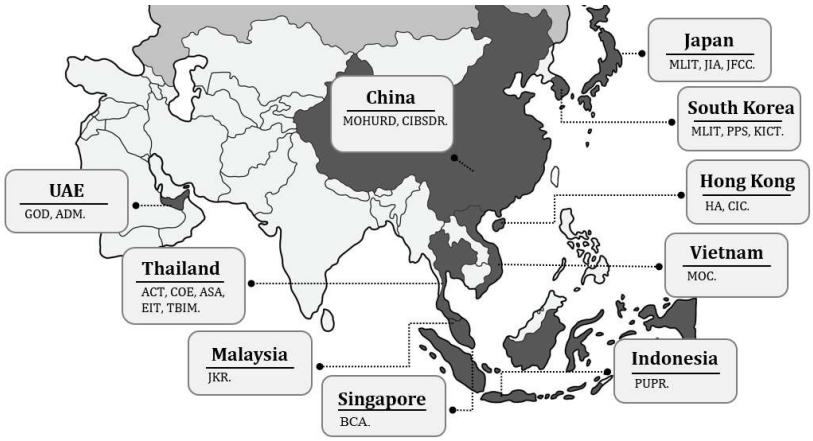

Figure 2. Government agencies and public bodies responsible for BIM standards across Asia.

This section demonstrates the varied timelines and approaches to BIM adoption across Asia, reflecting the diverse regulatory environments and cultural contexts within the region. **Figure 2.** illustrates the countries in Asia and the specific government agencies responsible for promoting and implementing their BIM standards.

3.1 The Development of BIM Standards

3.1.1 China

In 2011, China's Ministry of Construction, now the Ministry of Housing and Urban-Rural Development (MOHURD), began promoting BIM standards through 5-year plans. The 2011-2015 "Outline of Development of Construction Industry Informatization" was a key phase, supported by Tsinghua University and the China Institute of Building Standard Design & Research (CIBSDR) (Liu et al., 2017). In 2012, MOHURD initiated five national BIM standard projects, including the Unified Standard, Classification and Coding Standard, BIM Delivery Standard, Storage Standard, and Application Standard for Manufacturing. (Cassino et al., 2015; Liu et al., 2017).

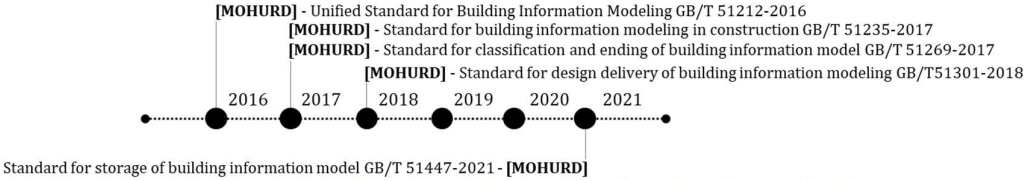

Figure 3. Timeline of BIM Standards and Guidelines Development in China.

Key policies from 2016-2020, policies emphasised BIM for industrial upgrading, leading to national standards. While China's BIM standard system operates at both national and local levels, inconsistencies arise due to provinces developing their own standards, resulting in a lack of national uniformity (Xie et al., 2022). Despite this, regional cities base their standards on national guidelines. A recent update introduced the "Unified Standard for the Application of Building Information Models," the highest-level BIM standard in China (Yang et al., 2023). Additionally, the Regional Roadmap for Buildings and Construction in China Towards Zero Emission by 2060 includes BIM as part of its development plan (China Academy of Building Research, 2023) .

3.1.2 Hong Kong

The Housing Authority (HA) is the main provider of public housing in Hong Kong and began using BIM in 2005. As the earliest BIM adopter among public entities, HA, referred to hereafter as HABIMSG, published its first BIM User Guide in 2009 (Housing Authority, 2024). Hong Kong has since produced numerous BIM-related documents, with significant updates available in the latest versions.

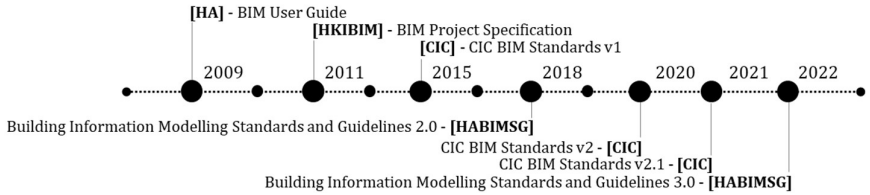

Figure 4. Timeline of BIM Standards and Guidelines Development in Hong Kong.

In 2011, the Hong Kong Institute of Building Information Modelling (HKIBIM) issued the BIM Project Specification. The Construction Industry Council (CIC) released the CIC BIM Standards v1 in 2015, with ongoing updates leading to the adoption of ISO 19650 in 2020. The CIC then introduced the BIM Standards General in 2020, which incorporated major enhancements to align with ISO 19650's Information Management principles and workflows. (Construction Industry Council, 2020).

3.1.3 Japan

In 2012, the Japan Institute of Architects (JIA) released its first BIM guidelines to integrate BIM into architecture practices. The following year, the Japan Federation of Construction Contractors (JFCC) developed guidelines for BIM collaboration during the construction stage (Shiokawa Takashi, 2013). By 2014, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) introduced BIM guidelines as part of its i-Construction initiative to enhance productivity and manage social infrastructure through 3D models. In Japan, the terms BIM and CIM (Construction Information Modelling) refer to the digitisation of information in construction to improve efficiency and management (Ministry of Land, 2024).

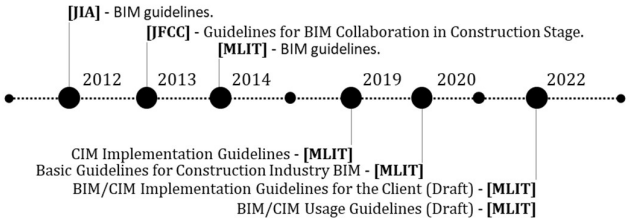

Figure 5. Timeline of BIM Standards and Guidelines Development in Japan.

From 2018 to 2024, MLIT developed several draft versions of BIM/CIM standards and guidelines, covering various applications in construction (Ministry of Land, 2020). In 2019, MLIT published the Vision for the Future and Roadmap to BIM, highlighting BIM usage in Japan and efforts to advance towards collaborative stages (Ministry of Land, 2019). That same year, the CIM Implementation Guidelines were released, referencing ISO 19650 and emphasising the importance of aligning BIM processes with local business practices in Japan's construction industry. In 2020, MLIT further advanced these efforts by releasing the Guidelines for BIM Standard Workflows.

3.1.4 South Korea

In 2011, the Ministry of Land, Infrastructure, and Transport (MLIT) introduced detailed BIM guidelines, marking a new era in construction management. By 2016, MLIT mandated BIM for all public projects, standardising practices (K. Lee et al., 2015). By 2012, 60% of industry professionals in South Korea were using BIM, reflecting effective planning and regulation (G. B. A. Lee, 2020). The Korea Land and Housing Corporation's phased adoption from 2016 further underscores this trend (the Ministry of Land, 2018).

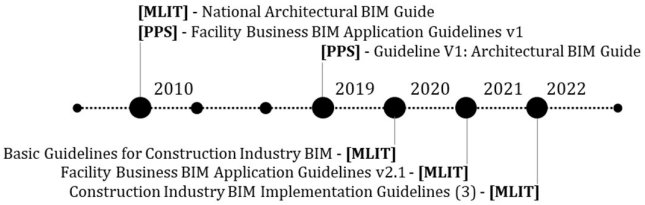

Figure 6. Timeline of BIM Standards and Guidelines Development in South Korea.

In 2010, MLIT issued initial BIM application guides (Jo & Choi, 2021; K. Lee et al., 2015). The Public Procurement Service (PPS) also released the BIM Cost Management Guide (V2). By 2020, the government was preparing unified "Basic Guidelines for Construction Business BIM," emphasising international standards like ISO 16739 (IFC) (Jo & Choi, 2021). In 2022, MLIT published three BIM implementation guidelines, focusing on CDE and promoting the IFC open standard. MLIT's BIM Roadmap 2030 aims to modernise the sector with new technologies and standardised practices (K. Lee et al., 2015).

3.1.5 Singapore

In Singapore's construction sector, BIM adoption supports strategic goals to boost productivity, enhance health and safety, and reduce reliance on foreign labor through streamlined processes and higher skill requirements (Chan Weng Tat, 2019; Takashi Kaneta et al., 2016). In 2008, the Building and Construction Authority (BCA) initiated the standardisation of BIM submission guidelines with the BIM e-Submission Guideline, followed by discipline-specific updates, the latest being in 2017. The BIM Guide v1.0 was introduced in 2012, establishing a framework for BIM implementation.

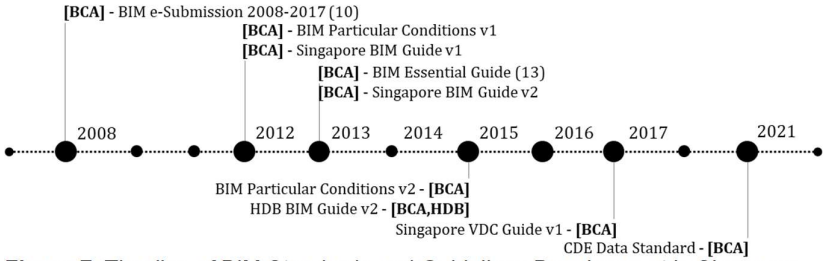

Figure 7. Timeline of BIM Standards and Guidelines Development in Singapore.

The BIM Essential Guide (BEG) series defined 13 roles and standards, including guides for BIM adoption and execution plans. BIM Guide v2.0 followed in 2013. In 2017, the Singapore VDC Guide v1 integrated BIM with Virtual Design and Construction (VDC) for enhanced project visualization and coordination. By 2021, the CDE Data Standard was developed separately, setting protocols for managing and sharing BIM data within a Common Data Environment, ensuring consistency, accessibility, and security.

3.1.6 Malaysia

In 2007, BIM was introduced to the Malaysian construction industry through the BIM Standard Manual and Guidelines by the Public Works Department (PWD)(Sinoh et al., 2020). The PWD and the Construction Industry Development Board (CIDB) developed a BIM Portal and formed the first BIM Steering Committee. However, since 2009, BIM progress has been largely driven by the private sector. The first government BIM project was announced in 2010, with JKR releasing the BIM Work Process Manual. CIDB later launched the Construction Industry Transformation Programme (CITP) for 2016-2020, aiming for BIM Level 2 by 2020 (CIDB & CREAM, 2021).

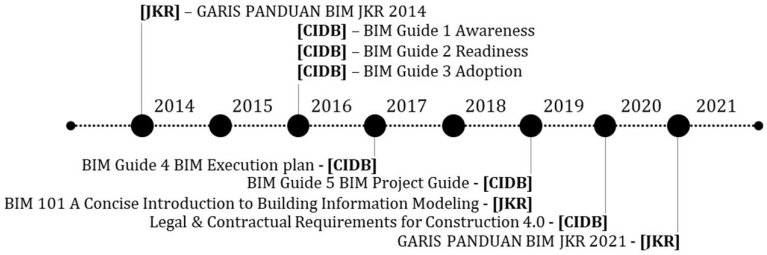

Figure 8. Timeline of BIM Standards and Guidelines Development in Malaysia.

In 2014, JKR establishing guidelines for BIM adoption in national projects. CIDB followed in 2016 with a series of BIM guides: Awareness, Readiness, Adoption, and BIM Execution Plan. JKR also released an introduction to BIM. In 2019, CIDB published BIM Guide 5: BIM Project Guide, aligning processes with BS EN ISO 19650 and PAS 1192 standards. CIDB released the Legal & Contractual Requirements for Construction 4.0 in 2020, and in 2021, JKR updated its guidelines reflecting the latest BIM advancements for sustainable infrastructure. (Global BIM Network, 2024).

3.1.7 Indonesia

Since 2017, the Ministry of Public Works and Public Housing (PUPR) in Indonesia has led the development of BIM standards and guidelines, collaborating with the Institute BIM Indonesia (IBIMI) to create the "Adoption of BIM in the Organisation" guidelines based on international best practices. The PUPR BIM Team established a 7-year roadmap to 2024 for BIM implementation in four phases: Adoption, Digitalisation, Collaboration, and Integration, aiming to enhance project efficiency, and improve construction quality nationwide. (Sopaheluwakan & Adi, 2020).

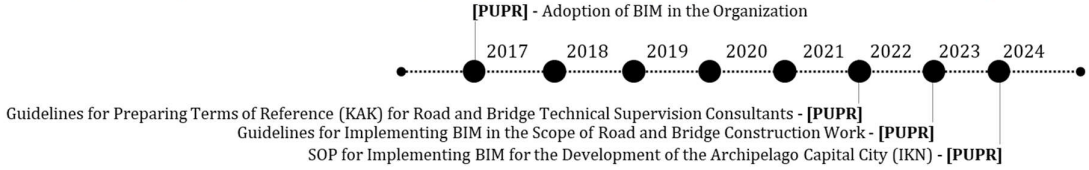

Figure 9. Timeline of BIM Standards and Guidelines Development in Indonesia.

In 2018, PUPR developed policies and standards to support BIM adoption, formalized by a Ministerial Regulation mandating BIM in public projects. Between 2022 and 2023, guidelines were issued for BIM in infrastructure, along with SOPs for BIM implementation in the Archipelago Capital City (IKN). These initiatives aim for full BIM integration by 2024, modernising Indonesia's construction industry and aligning with global standard (Ministry of Public Works and Public Housing, 2024).

3.1.8 Thailand

Since 2013, Thailand's BIM development has been driven mainly by major contractors focused on cost benefits (Tangparitkul & Savassook, 2015). By 2016, international collaboration expanded BIM use to public infrastructure (Sierra & Rodboonpha, 2022). While large developers

have adopted BIM, full utilisation depends on government mandates, especially for BIM Level 2 in public projects. The Department of Public Works and Town & Country Planning integrated BIM into their Terms of Reference by 2020 and trained officials. However, government involvement in BIM standards remains limited, with no clear roadmap. BIM efforts are primarily driven by the private sector and professional organizations, facing challenges like fragmented operations, lack of central authority, and diverse regulations. Despite mandates for state projects, BIM promotion falls short of Thailand's Industry 4.0 goals (Yomnak S, 2021).

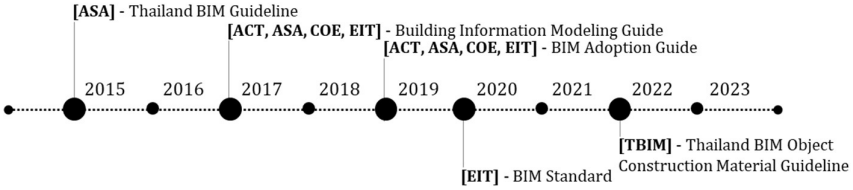

Figure 10. Timeline of BIM Standards and Guidelines Development in Thailand.

BIM standards in Thailand are managed by professional organisations. In 2015, the Association of Siamese Architects released the Thailand BIM Guideline. By 2017, professional organisations developed BIM Guide V1, followed by V2 in 2019. The Thailand BIM Association (TBIM) was established to promote BIM standards. In 2020, the Engineering Institute of Thailand created its own BIM standard, and in 2022, TBIM released the Thailand BIM Object Construction Material Guideline, beginning alignment with ISO 19650 (EIR).

3.1.9 Vietnam

BIM adoption in Vietnam, initially driven by foreign expertise, expanded among local companies and was recognised as crucial for construction management in 2014 (Bui, 2021). In 2016 marked a significant government commitment. By 2018, the Ministry of Construction developed BIM guidelines and standards, piloting projects to align with global trends. In 2021, adoption targets for major projects were set, with comprehensive guides published and regularly updated to ensure alignment with international standards. MOC has developed the Vietnam BIM Roadmap, outlining a digital strategy vision for 2030 and The National Energy Efficiency supports BIM by promoting energy-efficient (Vietnam BIM Steering Committee, 2017).

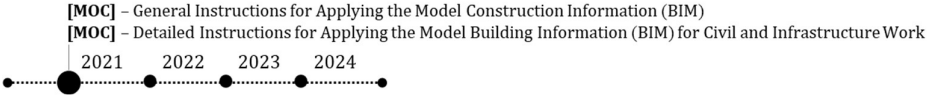

Figure 11. Timeline of BIM Standards and Guidelines Development in Vietnam.

Between 2018 and 2020, the Ministry of Construction developed BIM guidelines and standards, piloting projects to align with global trends (Dao et al., 2021). In 2021, detailed instructions emphasised the CDE and ISO 19650 1-2 standards for cohesive project information management. These, along with the EIR, established a standardised BIM practice. By 2022, continuous updates ensured alignment with global trends while addressing local challenges.

3.1.10 The United Arab Emirates (UAE)

The United Arab Emirates (UAE) is a federation of emirates, each with its own governance. Dubai Municipality, one of the UAE's largest governmental bodies, has driven growth through smart projects and services. BIM was first mandated in Dubai in 2013 with Circular No. 196 for architectural and MEP work, and expanded in 2015 with Circular No. 207 to cover more architectural and mechanical works. (CMS Legal, 2024).

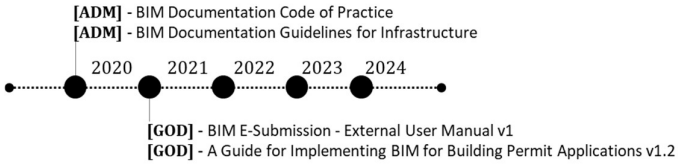

Figure 12. Timeline of BIM Standards and Guidelines Development in UAE.

In 2020, the BIM Documentation Code of Practice and BIM Documentation Guidelines for Infrastructure were released, aligning with ISO 19650 standards. In 2021, the Government of Dubai introduced the BIM E-Submission External User Manual v1 and A Guide for Implementing BIM for Building Permit Applications v1.2. A web platform now offers a free service for automatic code compliance checking based on BIM and the evolving Dubai BIM standard for building permits. (Government of Dubai, 2020). Abu Dhabi, the UAE's capital, began considering BIM for all construction projects in 2019. By 2021, the Department of Urban Planning and Municipalities mandated BIM for all government infrastructure projects and required developers to submit these projects to Abu Dhabi Municipality (ADM) (Close System, 2021). In 2020, the BIM Documentation Code of Practice and BIM Documentation Guidelines for Infrastructure were released, aligning with ISO 19650 standards.

4 Timeline of BIM Standards and BIM Level 3 Adoption Across Asia

This timeline highlights the development of national BIM standards. It examines key milestones and the readiness for BIM Level 3 implementation.

Legend: ● Content ▲ Cite □ Related

	Year:	BIM Standard/Guideline Name:	Interoperability: IFC, Open Standard	Collaboration: CDE, Cloud-based	Standards and Protocols: ISO-19650	Note:
ISO 19650 -1 ISO 19650 -2	2018	**CN_[MOHURD] -** Standard for design delivery of building information modeling				Inaccessible
		HK_[HABIMSG] - Building Information Modelling Standards and Guidelines 2.0	●	●	-	-
		MY_[CIDB] - BIM Guide 4 BIM Execution plan	▲	-	-	-
	2019	**HR_[PPS]** - Guideline V1: Architectural BIM Guide	●	-	□	ISO 13790 /ISO16739
		JP_[MLIT] - CIM Implementation Guidelines	▲	-	▲	ISO 19650-1 /ISO16739-1
		TH_[ACT, ASA, COE, EIT] - BIM Adoption Guide				Inaccessible
		MY_[CIDB] - BIM Guide 5 BIM Project Guide	-	●	●	ISO 19650-1,2:2018
		MY_[JKR] - BIM 101 A Concise Introduction to Building Information Modeling	▲	▲	▲	-
ISO 19650 -3 ISO 19650 -5	2020	**HK_[CIC]** - CIC BIM Standards v2 (7)	●	●	●	ISO 19650-1,2,3,5
		KR_[MOLIT] - Basic Guidelines for Construction Industry BIM	●	●	●	ISO 19650-1,2:2018 /ISO 15686-4
		JP_[MLIT] - BIM/CIM Usage Guidelines (Draft)	▲	-	-	-
		TH_[EIT] - BIM Standard	▲	-	▲	ISO 19650(EIR) /PAS 1192-2:2013
		MY_ [CIDB] - Legal & Contractual Requirements for Construction 4.0	-	●	-	-
		AE_[ADM] - BIM Documentation Code of Practice	●	▲	●	ISO 19650-1,2:2018 /PAS 1192-2,5
		AE_[ADM] - BIM Documentation Guidelines for Infrastructure	▲	●	●	ISO 19650-1,2:2018 /PAS 1192-2,5
	2021	**CN_[MOHURD]** - Standard for storage of building information mode				Inaccessible
		HK_[CIC] - CIC BIM Standards v2.1 (11)	●	●	●	ISO 19650-1,2,3,5
		SG_[BCA] - CDE Data Standard	●	●	▲	ISO 19650
		VN_[MOC] - General Guidelines for Application of Building Information Modeling	▲	●	●	ISO 19650-1,2:2018(EIR)
		VN_[MOC] - Detailed Instructions for Applying the Model Building Information...	▲	-	-	-
		MY_ [JKR] - GARIS PANDUAN BIM JKR 2021	▲	▲	●	ISO 19650-1:2018
		AE_[GOD] - BIM E-Submission - External User Manual v1	●	-	-	-
	2022	**HK_[HABIMSG]** - Building Information Modelling Standards and Guidelines 3.0	▲	●	▲	ISO 19650-1,2,3,5
		KR_[PPS] - Facility Business BIM Application Guidelines v2.1	●	-	□	ISO 16739
		KR_[MOLIT] - Construction Industry BIM Implementation Guidelines (3)	●	●	□	ISO 16739-1:2018 /ISO 15686-4
		JP_[MLIT] - BIM/CIM Implementation Guidelines for the Client (Draft)	▲	-	-	-
		JP_[MLIT] - BIM/CIM Usage Guidelines (Draft)	▲	-	-	ISO 16739
		TH_[TBIM] - Thailand BIM Object Construction Material Guideline	-	-	●	ISO 19650(PIR, AIR)
		IN_[PUPR] - Guidelines for Preparing Terms of Reference (KAK) for Road...	-	▲	-	-
	2023	**ID_[PUPR]** - Guidelines for Implementing BIM in the Scope of Road and Bridge...	▲	●	▲	ISO 19650
	2024	**ID_[PUPR]** - SOP for Implementing BIM for the Development of the Archipelago...	▲	●	▲	ISO 19650(EIR)

Table 1. Timeline of BIM Standards and BIM Level 3 Adoption

The timeline of BIM standards across Asia reveals that many countries have worked to align their BIM standards with international standards, particularly referencing PAS 1192-2:2013 and BS 1192:2007, which contributed to the development of ISO 19650. The shift towards BIM Level 3,

with an emphasis on enhanced collaboration through openBIM, IFC, CDE, and ISO 19650, began around 2018. Hong Kong was among the first to adopt ISO 19650-1, 2, 3, and 5 between 2020 and 2021, followed by South Korea, the UAE, Singapore, and Vietnam, which initially focused on ISO 19650-1 and 2. Singapore, in particular, has distinguished itself by separating BIM guidelines from Common Data Environment (CDE) content, resulting in fewer versions of its BIM guide, which has become a reference for many countries. Countries like Thailand, Vietnam, and Indonesia are beginning their development of BIM Level 3 standards by first adopting ISO 19650 for Exchange Information Requirements (EIR) content.

5 The Readiness of BIM Level 3 Implementation

In recent developments, BIM Level 3 remains in a state of evolution and has yet to achieve full implementation. The readiness for its adoption depends on several important factors. These include meeting international standards, ensuring that all stakeholders possess the necessary understanding, knowledge, and training, and securing support from governments and professional organisations. Additionally, collaboration with other industries and technological readiness are also crucial. These factors are key to understanding how Asian countries are advancing towards BIM Level 3 and the impact this will have on their construction industries.

Table 2. Key Factors for BIM Level 3 Readiness.

Key Factors	Countries
Compliance with International Standards	[AE], [HK], [ID], [KR], [MY], [SG], [TH], [VN]
Government Support	[AE], [CN], [HK], [ID], [JP], [KR], [MY], [SG]
Stakeholder Understanding	[HK], [SG]
Strategic Integration with Other Industries	[AE], [CN], [HK], [JP], [SG]
Advanced Technological Readiness	[AE], [HK], [JP], [KR], [SG]

Legend: China [CN], Hong Kong [HK], Indonesia [ID], Japan [JP], Malaysia [MY], Singapore [SG], South Korea [KR], Thailand [TH], UAE [AE], Vietnam [VN]

Singapore, Hong Kong, South Korea, and the UAE have made significant advancements in BIM Level 3, primarily due to strong government backing and alignment with ISO 19650 standards. However, Thailand and Indonesia are still in the early stages of adoption, focusing on compliance but facing challenges due to fragmented operations and inconsistent support. Countries with broad national development strategies, such as South Korea, Hong Kong, China, Japan, the UAE, and Vietnam, are well-positioned to integrate BIM across various sectors, enabling them to drive comprehensive national progress. Additionally, Singapore and Hong Kong are expected to lead in stakeholder engagement, as their use of English in communication and standards helps to reduce language barriers, thereby accelerating the implementation of BIM Level 3. Moreover, the advanced digital infrastructure in Singapore, Hong Kong, and the UAE, combined with strong technological capabilities in Japan and South Korea, further supports the effective adoption of BIM Level 3 across these countries.

6 Finding and Discussion

Countries in Asia have been striving to develop their own BIM standards, aiming to align them with international standards to ensure efficient interoperability. Currently, the use of BIM in Asia is in a developmental stage, as evidenced by the emergence of national BIM standards designed to be compatible with global benchmarks. Among these, Singapore, Hong Kong, South Korea, and the UAE have made significant progress in developing comprehensive BIM Level 3 standards. The most successful implementations are seen in countries where government support is robust, and development plans are strategically aligned with the growth of other industries. This alignment not only facilitates more meaningful and rapid implementation of BIM but also drives overall progress and adoption more efficiently. Key factors contributing to successful BIM adoption include strong government initiatives, alignment with international standards such as ISO 19650, stakeholder engagement, and advanced technological infrastructure. These factors collectively

ensure that BIM implementation is not only effective but also sustainable. The development of BIM implementation in countries with diverse regional governance requires careful alignment with local regulations, leading to region-specific BIM standards. For instance, in mainland China, major cities like Beijing and Shanghai have developed their own BIM standards to meet regional requirements. Similarly, Hong Kong has established unique BIM standards tailored to its specific regulatory environment, while the UAE, as a federation composed of several emirates, has distinct BIM standards for each emirate's governance system. Japan follows a national BIM standard, complemented by region-specific guidelines provided by each Local Development Bureau. These varying regulatory environments necessitate diverse and adaptable BIM standards to ensure effective implementation across different regions. The overarching development of BIM Level 3 in these countries aligns with international standards, allowing for the potential creation of a unified standard in the future.

7 Conclusion

This study demonstrates that Asian countries are making significant efforts to develop BIM standards that align with international benchmarks, despite the challenges of creating a unified standard. Progress towards supporting BIM Level 3 represents a positive step forward, enhancing interoperability and collaboration across borders, driven by the need to meet international requirements. In practice, the most effective BIM adoption occurs in countries with strong government initiatives, professional support, and strategic integration across industries. Countries like Singapore, Hong Kong, South Korea, and the UAE benefit from these factors, which have facilitated their advancements in BIM Level 3. Additionally, stakeholder engagement and technological readiness, particularly in countries with advanced digital infrastructure, have been critical in accelerating BIM adoption. Future efforts should focus on strengthening international collaboration in Construction Information Technology, leveraging shared experiences and best practices to address challenges and opportunities. Continued alignment of regional BIM guidelines with global standards will be crucial for ensuring seamless integration across borders, ultimately driving the construction industry towards greater efficiency, innovation, and collaboration.

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