



Indonesia Construction Transformation
Readiness

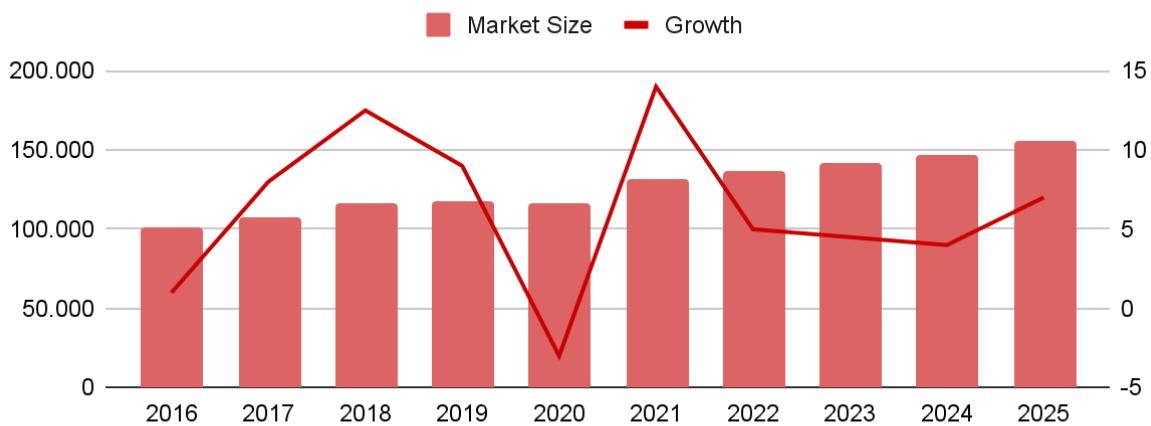
Why Indonesia's Construction Leaders Must Transform Now to Win the Future?

December 2025,
By Achmad Za'im Mudzaki

The construction sector is growing, with regional shifts, rising tech, and sustainability opportunities

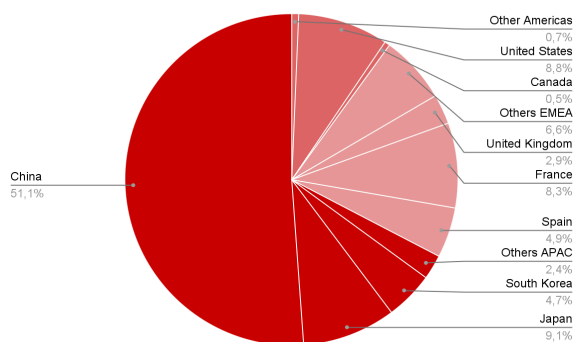
The global building construction market reached US\$15.97 trillion in 2024, equal to 18% of global GDP. It is projected to grow to US\$17.05 trillion in 2025, a 6.8% annual increase and 23% growth since 2020. From 2025 to 2030, the industry is expected to grow at a 4.5–5% CAGR, surpassing ¥38 trillion by 2030. High-growth segments include green buildings (¥1.8 trillion by 2030) and intelligent construction technologies (¥1.4 trillion by 2030). The sector enters 2025 facing higher material costs (+8.3% YoY in 2024, RICS), labour shortages, and macroeconomic pressure. Even so, momentum remains strong. Adoption of BIM, IoT, and AI has increased 27% since 2020, supported by global sustainability policies and demand for efficient, low-carbon construction.

Figure 1: Global Construction Market Size & Growth Tren Outlook



The global construction market continues to scale, with steady mid-single-digit growth and Asia Pacific remaining the dominant engine of expansion. The region is projected to reach USD 3.5 trillion by 2025, accounting for more than 45% of global activity. China, India, and Southeast Asia contribute over 60% of this volume, supported by rapid urbanisation, large-scale infrastructure programs, and sustained public investment. Cost pressures persist as material prices rise, making execution discipline and risk control increasingly important for margin protection.

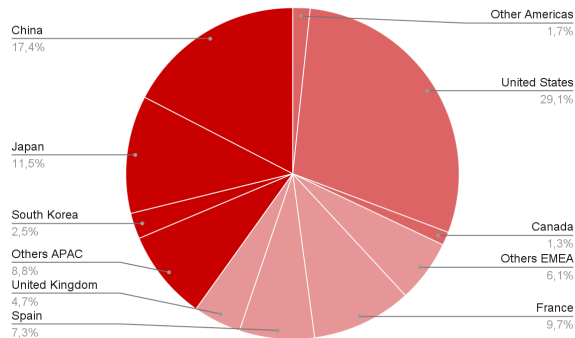
Figure 2: Top 100 Global Construction Company Sales and Market Capitalization



The global construction market is highly concentrated, with Chinese companies controlling 51.1% of total sales and market capitalization among the top 100 firms. Japan (9.1%), the United States (8.8%), and France (8.3%) form the next tier, while other regions each contribute below 5%. This distribution shows that global scale and competitiveness are dominated by a small group of mega-contractors, primarily from China. For

markets like Indonesia, the implication is direct. local firms operate in a landscape shaped by players with far greater financial capacity, delivery capability, and global experience. To compete, Indonesian contractors need stronger project controls, tighter cost management, and strategic partnerships that can offset the scale advantage held by these international leaders.

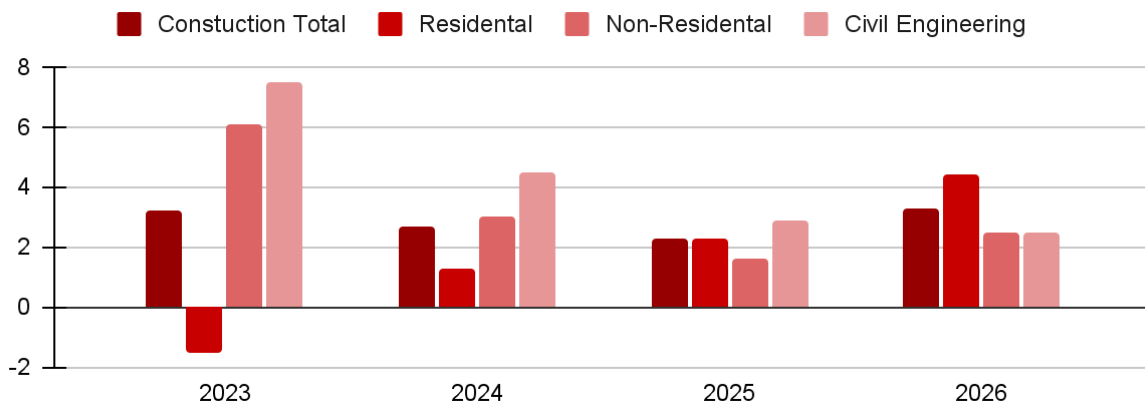
Figure 3: Global Market Capitalization



The market capitalization of the global construction sector is heavily concentrated in a few regions. The United States holds the largest share at 29.1%, followed by China at 17.4% and Japan at 11.5%. European players such as France (9.7%) and Spain (7.3%) remain influential but lack the scale of the top three. Other regions, including South Korea (2.5%), Canada (1.3%), and the rest of APAC and EMEA (each under 9%), contribute much smaller proportions. This distribution shows that global

competitiveness is driven by a limited number of markets with strong capital bases. For emerging markets like Indonesia, this means competing in a landscape where financial strength and scale are decisive. Local firms must strengthen capital efficiency, improve project delivery performance, and build partnerships to stay competitive against larger international players.

Figure 4: Global Construction Output Year-on-Year Forecast

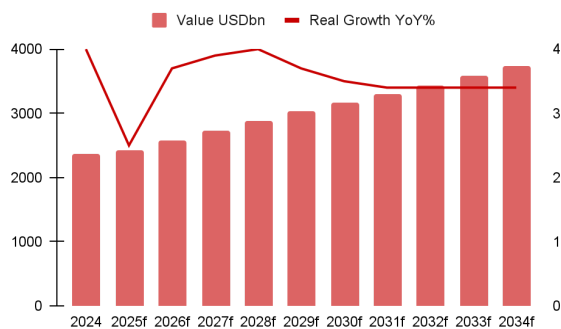


Global construction is moving into a phase of steady, moderate growth. Output rose 3.2% in 2023 and is stabilizing in the 2.7–3.3% range through 2026, driven mainly by civil engineering and continued infrastructure investment. Residential and non-residential segments remain slower due to financing constraints and macro uncertainty, with growth expected to soften to 2.3% in 2025 as geopolitical pressures affect project pipelines.

The long-term outlook remains strong. From 2025–2030, global construction is projected to grow at a 5.5% CAGR, expanding total output by 85% to USD 15.5 trillion. China, the US, and India will contribute more than half of this growth. The message is straightforward. short-term volatility demands tighter cost and schedule control, while the coming expansion will benefit firms that invest early in capability, operational excellence, and exposure to high-growth markets.

Asia-Pacific construction is set for steady long-term growth, led by high-growth Southeast Asian markets.

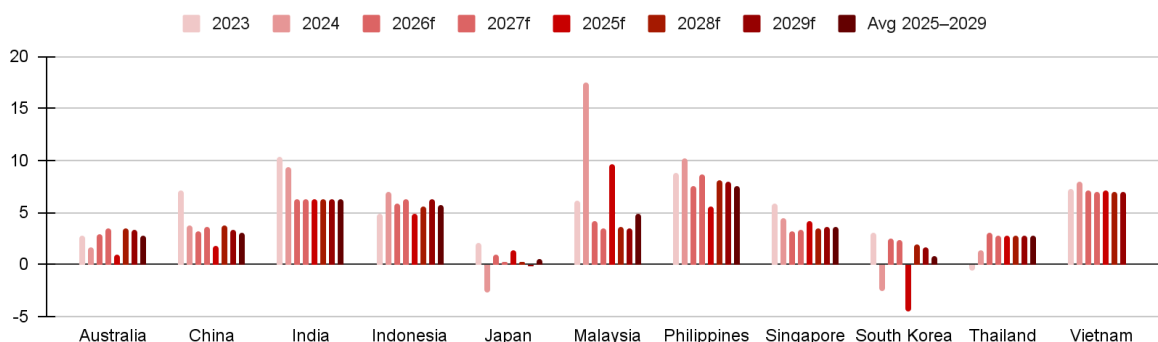
Figure 5: Construction Industry Forecast (Asia-Pacific 2024-2034f)



The forecast shows that the Asia-Pacific construction market will continue expanding steadily over the next decade. Industry value rises from around USD 2.36 trillion in 2024 to USD 3.73 trillion by 2034, supported by annual real growth in the 3.4–4.0% range. Although growth moderates slightly after 2026, it remains consistently positive, indicating a structurally resilient sector. This trend reflects strong urbanisation, sustained infrastructure

investment, and increasing adoption of modern construction technologies across the region. For industry players, the data signals a long-term opportunity landscape rather than short-term volatility. Firms that build capability in project delivery, technology integration, and cost efficiency will be best positioned to capture value as the market expands gradually but reliably.

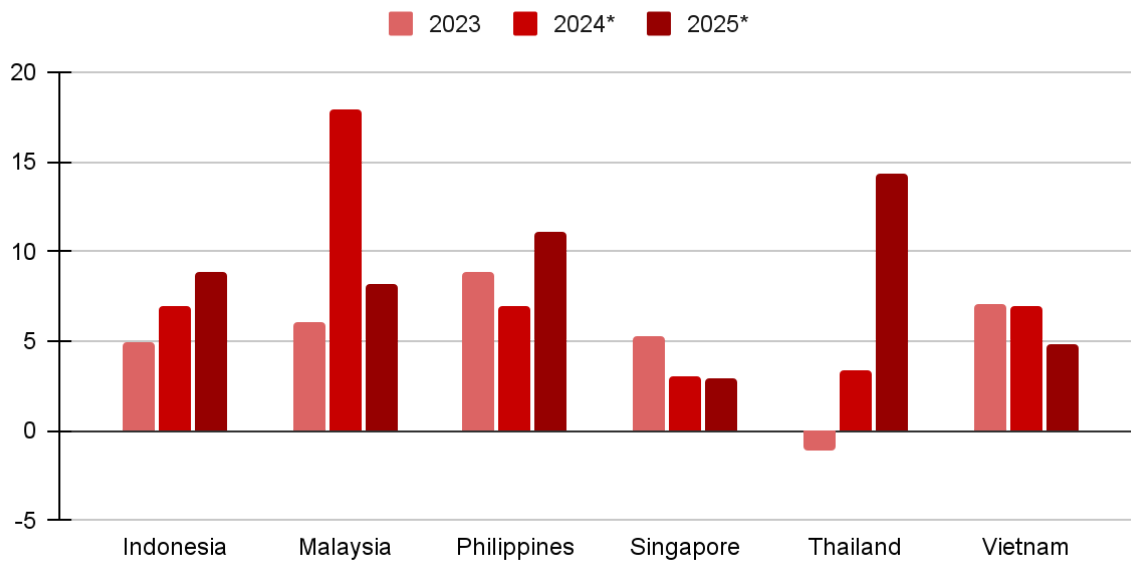
Figure 6: Construction Industry Value Real Growth Forecast (Asia-Pacific Market)



The forecast shows a clear divergence in growth momentum across Asia-Pacific markets. Economies like India, the Philippines, Vietnam, and Indonesia consistently record some of the highest real growth rates in the region, with medium-term averages between 5% and 7%. These markets are supported by strong demographics, rapid urbanisation, and sustained government investment in infrastructure. In contrast, mature markets such as Japan, South Korea, and Australia show slower and more volatile growth, reflecting weaker housing demand, ageing populations, and limited structural expansion. China remains positive but below its historical highs, stabilising in the 3% range as the real estate sector continues to adjust.

For industry players, this distribution highlights where future opportunities will concentrate. High-growth Southeast and South Asian markets will drive regional expansion, while advanced economies shift toward selective, value-added construction segments. Companies aiming to scale in Asia-Pacific must align their market strategy with these growth clusters and build capabilities suited to fast-moving, infrastructure-led environments.

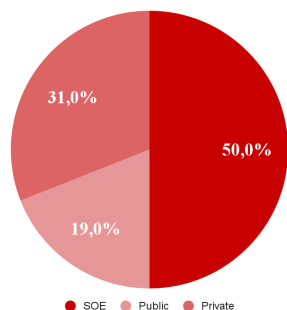
Figure 7: South East Asia Construction Output per Market Year-on-Year



Growth across Southeast Asia is recovering, but each market moves at a different pace. Indonesia shows steady strength, rising from 4.9% to 8.9% in 2025, supported by ongoing infrastructure programs. Malaysia posts a sharp spike in 2024 (17.9%) driven by project restarts, not long-term momentum.

The Philippines remains one of the fastest-growing markets with double-digit expansion in 2025. Singapore grows modestly as activity focuses on high-value commercial and data-center projects. Thailand rebounds strongly in 2025 after a weak 2023, while Vietnam maintains consistent mid-range growth. The region offers selective opportunities. Indonesia, Philippines, and Vietnam show sustained demand, while Malaysia and Thailand require timing-based entry. Firms that prioritize these high-growth markets and adapt capacity accordingly will capture the strongest returns.

Figure 8: Source of Infrastructure Financing 2015-2019

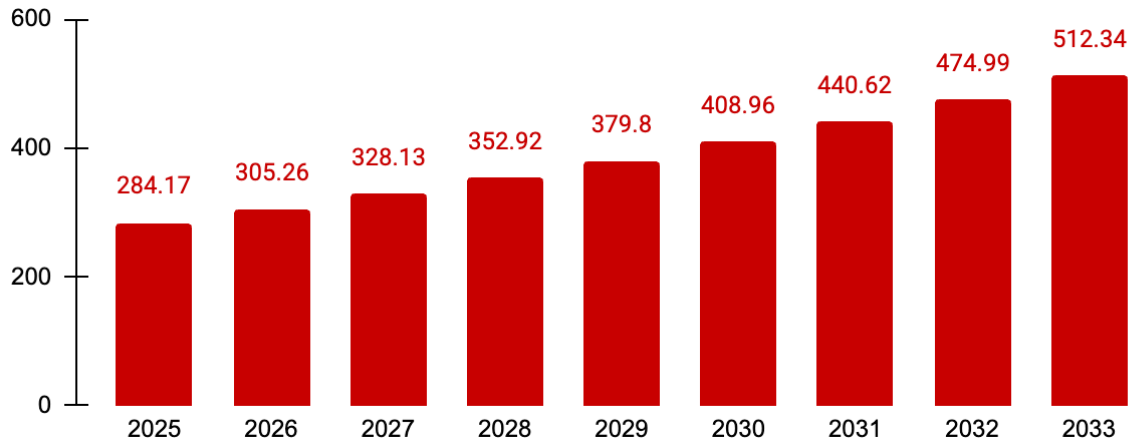


The financing profile remains government-heavy, with 50% from public budgets and 19% from SOEs. Private capital contributes only 31%, signalling a market where risk allocation, due-diligence quality, and project bankability still limit broader participation.

Fiscal capacity will not sustain future infrastructure demand. This creates a structural opening for players that can strengthen project preparation, de-risk execution, and introduce PPP discipline. The shift toward blended financing is unavoidable, and firms with the right capabilities will define the next growth cycle.

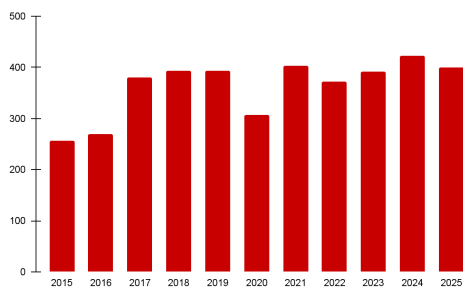
Indonesia enters a stable construction growth cycle driven by public investment and regional demand.

Figure 9: Indonesian Construction Industry Size (Million)



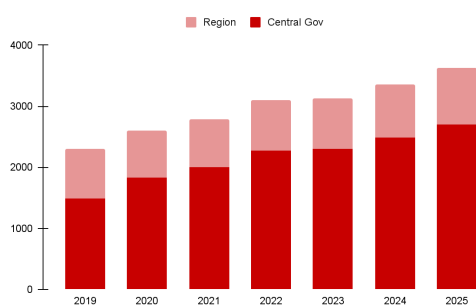
Indonesia is entering a sustained growth cycle, with industry value projected to nearly double between 2025 and 2033. This reflects long-term expansion driven by infrastructure continuity, urban development, and rising private investment. For contractors and developers, the implication is clear. A growing market will reward firms with scalable execution capacity, disciplined cost control, and stronger project governance. Those that invest early in capability and reliability will capture disproportionate value as the sector compounds year over year.

Figure 10: Infrastructure Spending (IDR Tn)



Indonesia's infrastructure spending shows a pattern of sustained commitment, rising from IDR 256 trillion in 2015 to a peak of IDR 423 trillion in 2024, before easing slightly to IDR 400.3 trillion in 2025. Despite fluctuations during the pandemic (notably IDR 307 trillion in 2020), the long-term trend remains upward, reflecting government prioritization of connectivity, logistics, and national strategic projects.

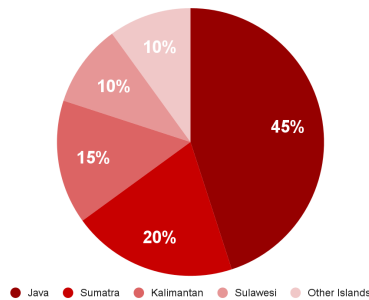
Figure 11: Government Infrastructure (IDR Tn)



Government expenditure follows a similar expansion trajectory. Central government spending increased consistently from IDR 1,496 trillion in 2019 to IDR 2,487 trillion in 2024, with a further rise to IDR 2,701 trillion projected for 2025. Regional government spending also grows from IDR 813 trillion in 2019 to IDR 920 trillion forecast in 2025, signaling broader fiscal support for infrastructure, public services, and local development.

Together, these trends indicate a stable medium-term outlook for Indonesia’s construction sector. Even with slight budget adjustments, the scale of public investment remains substantial. This provides a strong pipeline for civil engineering, transportation, utilities, and urban development projects, while also reinforcing the importance of project governance and execution capability as spending levels rise.

Figure 12: Indonesian Construction Industry Segmentation by Geography



Java captures 45% of national construction activity, reflecting its concentration of population, urban centers, and economic assets. This dominance shapes where capacity, suppliers, and capital naturally cluster. Sumatra (20%) and Kalimantan (15%) represent the next major demand zones, driven by industrial expansion, energy projects, and new transport corridors.

Sulawesi and other islands, each at 10%, remain smaller but strategic, particularly as government policy pushes for more balanced regional development. For industry players, this distribution highlights the need for differentiated market strategies. Firms must maintain scale and efficiency in Java while building selective regional capabilities in growth corridors like Kalimantan and Sulawesi to capture emerging demand.

Figure 13: Indonesian Construction Industry Segmentation by Geography

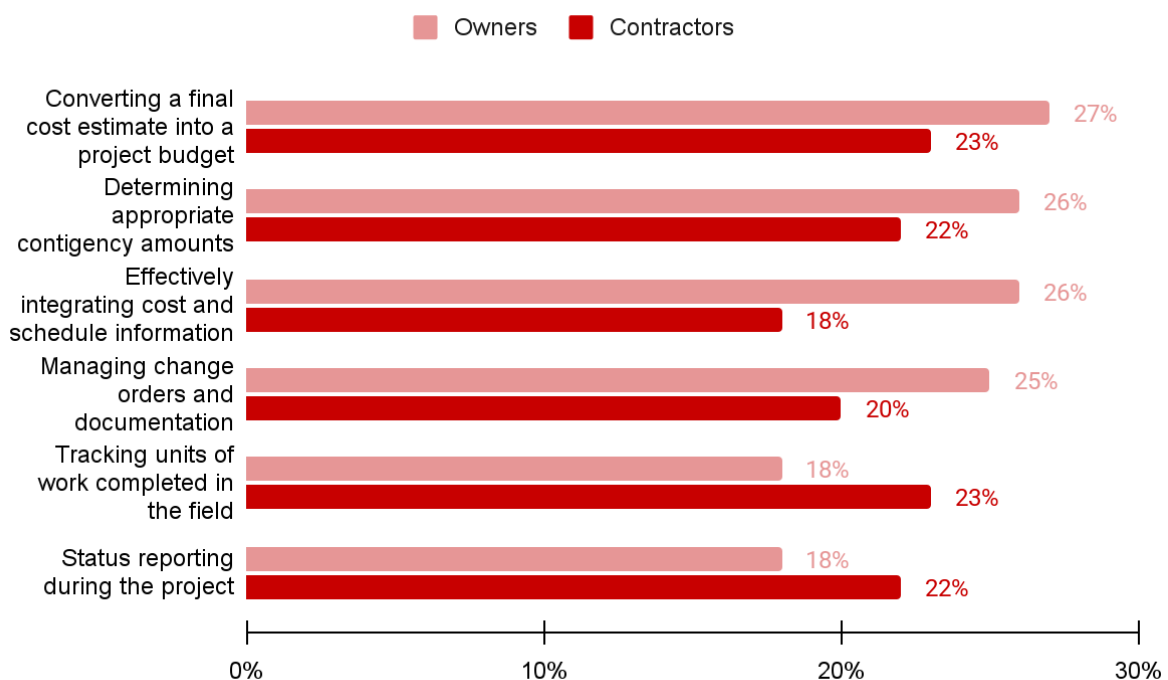
<p>Cost Overruns and Recurring Rework</p> <p>Projects frequently exceed budgets due to rework and inaccurate cost planning to remain key drivers of overruns.</p>	<p>Project Delays and Slow Approvals</p> <p>Complex permitting processes, long approval, and material or design delays continue to reduce schedule reliability.</p>
<p>Shortage of Skilled Labor</p> <p>A limited supply of qualified engineers and technical workers reduces productivity, increases quality risks, and delays.</p>	<p>Complex Regulations and Compliance</p> <p>Regulatory processes and building-code compliance remain cumbersome, adding administrative burden</p>

Indonesia’s construction industry faces recurring challenges that slow projects and reduce margins. Many firms still struggle to control costs, navigate slow approval processes, and secure enough skilled workers. Complex regulations add further delays and administrative burden. These issues show a clear need for stronger planning, better coordination, and more disciplined project execution across the sector.

Deviation control is now the critical determinant of profitability in Indonesia's construction sector.

Cost governance remains weak across the industry, with owners and contractors struggling to convert estimates into reliable budgets and set effective contingencies. Poor integration between cost and schedule data, weak change-order control, and inconsistent field tracking further amplify instability. These fragmented processes are the core drivers of overruns and rework. These integration gaps will see immediate improvements in predictability and margin performance.

Figure 14: Top Cost Management Challenges: Owner and Contractor



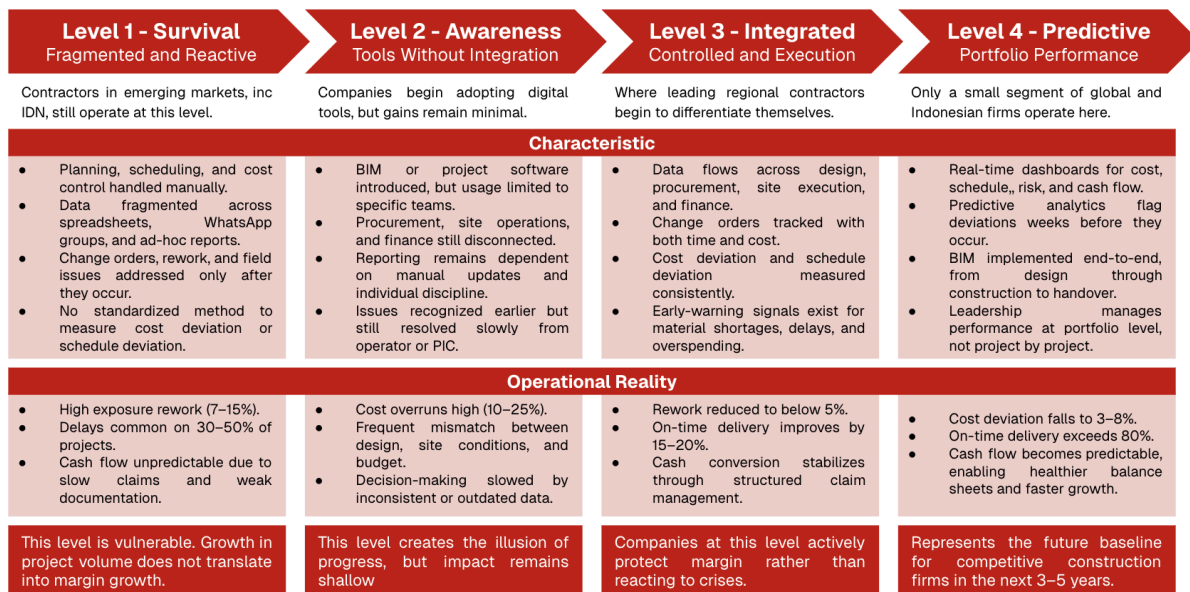
Indonesian contractors still face major execution gaps. Between 2020–2024, 68% reported unplanned cost overruns driven by rework, late design changes, and weak field coordination. In severe cases, rework can take up to 30% of project cost, and much of it stays hidden across overtime, extra materials, and subcontractor fees. Even 4–10% rework in a Rp 1 trillion portfolio translates into Rp 40–100 billion in silent margin loss, showing how quickly profitability erodes when deviations are not measured and controlled.

Global benchmarks reinforce the urgency. Only 25% of construction firms deliver on time and on budget, while those using disciplined, data-driven project controls cut rework by 5–10% and improve schedule reliability by 20–25%. In Indonesia, deviation pressure is even higher, with rework reaching 2.4–20% and overruns often 18–32%. The implication for leaders is clear. Improving cost and schedule deviation, rework visibility, change-order discipline, and cash conversion is now a core profitability lever. Firms that strengthen these metrics consistently recover margin and stop the silent losses across their project portfolio.

The construction sector is scaling. But operational maturity is not.

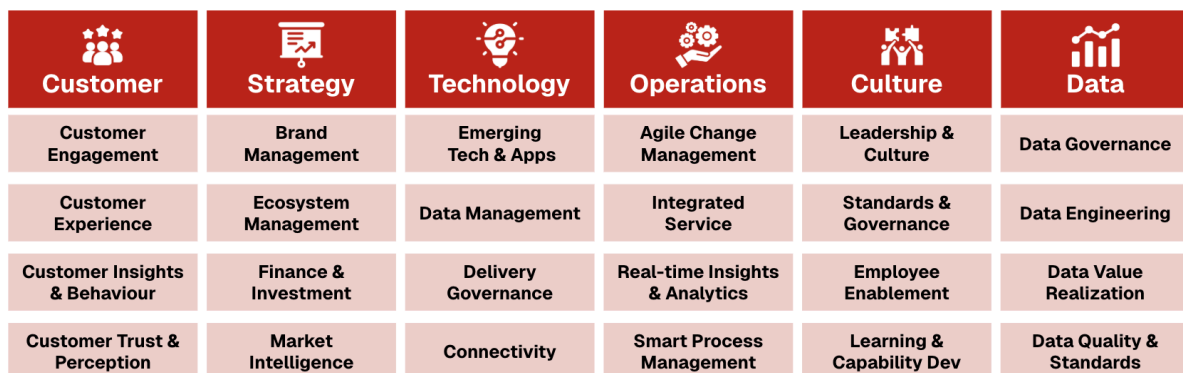
Investment in construction keeps growing globally and in Indonesia, but performance gaps remain wide. Many firms know they need digital transformation, yet few have the operational maturity to turn tools into real results. This maturity diagnostic shows how organizations progress and why many remain stuck in early stages despite years of modernization.

Figure 15: Construction Operational Maturity Curve



Most Indonesian contractors still work with manual, disconnected processes, which drives rework, delays, and cash-flow issues because core functions don't operate in one system. As firms move up the maturity curve, integrating design, procurement, execution, and finance reduces rework, improves schedule reliability, and stabilizes cash flow. This ties directly to the digital transformation maturity model, where stronger operational, technology, culture, and data capabilities enable real-time visibility and predictive insights. At higher maturity levels, leaders can manage performance across the full portfolio with greater consistency and control.

Figure 16: Construction Operational Maturity Curve



AI is becoming a core driver of value across engineering and construction workflows.

Table 1: AI Use Cases for Value Creation in Engineering & Construction

Value Area	Use Case	AI Application
Project Management Excellence	Automated site planning	Generate optimized site layouts by automating parts of the design workflow
	Schedule optimization	Improve project schedules by analyzing resource availability and constraints
	Technical content summarization	Extract insights from technical documents and convert them into concise field-ready summaries
Design & Engineering Capability	Smart building systems design	Recommend efficient and sustainable building automation configurations
	Generative product design	Produce new 3D design concepts by running variations based on engineering constraints
	Advanced materials design	Develop improved materials using scientific modeling to target specific performance properties
Operational Efficiency	Workflow optimization	Reorganize project activities automatically based on real-time status and alerts
	Drone-data interpretation	Summarize large volumes of drone imagery and enable targeted search for specific site conditions
Safety, Risk & Compliance	Quality assurance	Generate synthetic training data and support automated QA systems to reduce defects and prevent failures
	Automated compliance	Check building designs against regulatory requirements and local codes through automated validation

AI gives construction firms a practical way to lift performance across planning, design, and execution. Automated site planning, schedule optimization, and technical summarization cut manual work and improve decision speed, while generative design and smart-building capabilities raise engineering quality with fewer iterations.

AI also strengthens field reliability. Workflow automation, drone-data interpretation, and automated QA help reduce rework, improve schedule stability, and prevent compliance issues before they escalate. Targeted AI adoption delivers immediate gains in efficiency, predictability, and risk control, creating a stronger foundation for margin improvement at scale.

The market is getting tougher, contractors must strengthen execution & risk control to stay competitive.

Indonesia's construction sector is entering a phase where growth will favor firms with stronger governance, better financing capability, sustainable solutions, and modern delivery methods. Four opportunity areas stand out as the industry shifts toward efficiency, transparency, and technology-driven execution.

- 1. Project Controls and Risk Management**
 Contractors need stronger cost, schedule, and quality control. Firms that provide integrated project controls and risk frameworks can capture immediate value as clients look for predictable delivery.
- 2. PPP and Infrastructure Financing Advisory**
 Indonesia's funding gap creates demand for better financial structuring and risk allocation. Advisors who can improve project bankability and accelerate approvals become essential partners in large infrastructure programs.
- 3. Green Building and Retrofit Opportunities**
 Demand for sustainable buildings is rising. Contractors that adopt green standards early and offer retrofit solutions gain a clear competitive edge as ESG requirements tighten.
- 4. Modular and Smart Construction Methods**
 Labor pressures and cost challenges are pushing the shift to modular and prefabricated construction. Early adopters using digital and automated methods benefit from faster delivery, higher quality, and better cost control.

Table 2: Risk Mapping for Industry Construction

Risk / Disruptor	Industry Impact
Material price volatility and global inflation	Margin pressure increases, cost overruns become more frequent, and fixed-price contracts face higher exposure to raw-material fluctuations.
Labour shortages and skill gaps	Projects slow down, labour costs rise, and quality risks grow due to limited availability of experienced workers.
ESG, green-building, and sustainability compliance	Stricter regulations require higher standards. Clients increasingly select contractors with verified sustainability practices and certifications.
Tight financing conditions, higher interest rates, and funding gaps	Public and private projects experience delays while investors demand clearer risk allocation, stronger financial structure, and higher transparency.

These risks show that the construction market is becoming tougher and more selective. Higher material prices and labour shortages will keep pressuring margins unless companies improve cost control and execution. Growing ESG requirements mean clients will prefer contractors who can prove sustainable and compliant practices. At the same time, tighter financing makes investors demand clearer risks, stronger planning, and better project transparency. For construction firms, adapting to these shifts is essential to stay competitive and secure future projects.

We fix the root cause. Not the symptoms.

The construction industry is not struggling because of external uncertainty alone. It is struggling because legacy operating models cannot keep up with volatility, financing constraints, and compliance pressure. Baswara enters as a transformation architect to rebuild the way organizations plan, execute, and scale projects. Below is the transformation bridge that connects pain points to measurable outcomes.

1. WHAT WE SOLVE

Baswara addresses the structural drivers behind rework, procurement delays, and uncontrolled cost deviations.

<p>Chronic Cost Overruns & Schedule Slippage</p> <p>Caused by fragmented data, manual planning, slow reaction time, and weak portfolio-level visibility.</p>	<p>ESG, Green Building, and Safety Standards</p> <p>Most companies react tactically. Baswara builds the capability system so compliance becomes a competitive advantage.</p>
<p>Inability to Secure Funding or PPP Deals</p> <p>Clients struggle to meet bankability criteria, risk-allocation, and transparency requirements demanded by lenders and investors.</p>	<p>Low Digital Maturity & Failed Tech Adoption</p> <p>IoT, BIM, dashboards, and digital twins fail because the processes and governance are not ready.</p>

Most construction firms are not failing because of external volatility, but because core processes are fragmented, manual, and reactive. Cost overruns, schedule slippage, ESG pressure, funding difficulty, and low digital adoption all stem from the same structural issue: project data, decisions, and controls do not move through a unified system. This gap makes every tool, dashboard, or new technology underperform because the organization is not designed to operate with discipline and predictability.

These challenges require more than new software. They require an operating model that aligns planning, procurement, site execution, finance, and risk into a connected and measurable workflow. This is where Baswara steps in. The problems listed above are not independent symptoms, but outcomes of a broken delivery structure. The fundamentals to *How We Work* describes Baswara's methodology to rebuild these foundations so every project becomes more predictable, more controlled, and financially healthier.

2. HOW WE WORK (Baswara Methodology)

Baswara's approach is built on **four transformation pillars**. Each pillar directly attacks the Silent Killers identified in the industry.

<p>Operational Maturity Diagnostic</p> <p>We benchmark your organization across four maturity levels: Survival, Awareness, Integrated, Predictive.</p> <p>We identify:</p> <ul style="list-style-type: none">• % of preventable rework• procurement bottlenecks• cost deviation patterns• technology waste• ESG compliance gaps• contract risks	<p>Financial Structuring & Bankability</p> <p>We help clients transform projects from concept to bankable asset to support project implementation and scalability.</p> <p>Our support covers:</p> <ul style="list-style-type: none">• PPP structuring• financial model design• risk allocation modeling• lender-ready documentation• ESG & green-financing alignment• performance-based contract design
<p>Portfolio-Level Project Controls</p> <p>Installs a unified project controls framework that connects planning, procurement, risk management, schedule, and cost forecasting.</p> <p>Our work includes:</p> <ul style="list-style-type: none">• Cost & schedule baselining• Early-warning KPI system• Portfolio-level S-curve, earned value, risk heatmap• Contractor performance governance• Change-order & variation management discipline	<p>Digital Integration & Capability Build</p> <p>Instead of installing tools, we redesign the process. Baswara ensures technology amplifies productivity.</p> <p>Focus Areas:</p> <ul style="list-style-type: none">• BIM workflow integration• IoT for material, equipment & safety• predictive analytics for delay/cost trends• site performance dashboards• digital QA/QC process• sustainability & carbon MRV

We are not adding more people to your team.

We rebuild how your team performs.

Baswara acts as your transformation architect, a partner that diagnoses, designs, and operationalizes the systems required to compete in a future where efficiency, transparency, and sustainability define the winners.