

AZBIL CORPORATION RECEIVES THE 2023 COMPANY OF THE YEAR AWARD

*Identified as best in class in the Southeast Asia
smart buildings solutions industry*



Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Azbil Corporation excels in many of the criteria in the smart buildings solutions space.

AWARD CRITERIA	
<i>Visionary Innovation & Performance</i>	<i>Customer Impact</i>
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

Connectivity, Convergence, and Energy-efficiency Drive Transformational Growth

The smart buildings market in Southeast Asia is currently experiencing significant growth on a global scale, largely due to the region's robust building construction activity fueled by rapid urbanization and fast-growing economies. Facility owners and managers increasingly prioritize energy efficiency and operational performance improvements, focusing on pandemic-focused solutions, resilience, and green certifications. These measures ensure that buildings provide a healthy environment that satisfies the occupants' safety and comfort requirements. Also, many countries in this region are increasing investments in smart cities. China and India lead the growth in volume, while countries like Japan, Korea, and Singapore drive technology uptake, fueling the demand for building automation systems (BAS) and building management systems (BMS).

Frost & Sullivan estimates the Southeast Asian BMS market will reach \$337.8 million in 2028, with a compound annual growth rate of about 7%, from 2022 to 2028.¹ Specifically, the convergence of information and communications technology with building technologies drives the digitalization of buildings. Despite the high growth potential, costly capital expenditure, a lack of skilled workforce, and cybersecurity concerns restrain market expansion and will remain challenges during the forecasted period. However, Frost & Sullivan analysts foresee that the Southeast Asian BMS market will continue its

¹ Southeast Asia Building Management Systems Growth Opportunities: Energy Efficiency and Sustainability Goals Vital for Future Growth Potential (Frost & Sullivan, September 2023)

growth trajectory during the next five years. BMS and BAS play a crucial role in creating smart buildings and contributing to the overall smart city ecosystem.

Improving Asset Productivity, Enhancing Interior Spaces, and Reducing Energy Consumption

Founded in 1906 and headquartered in Japan, Azbil Corporation (Azbil) delivers solution-orientated services that address the evolving needs of the smart building solutions market. The company fights climate change by retrofitting buildings and developing energy management technology to reduce CO₂ emissions. It also creates innovative products that enhance workplace safety and are in high demand during the COVID-19 pandemic, leveraging company-specific practices. For example, Azbil took a bold step forward by establishing the Strategic Planning & Development Office in Singapore to expand its business in Southeast Asia, stimulating business activities in the region and supporting affiliates in Singapore, Thailand, Indonesia, Vietnam, the Philippines, Malaysia, and India. A diverse range of solutions and services caters specifically to the Southeast Asia region. This strategic move has enabled Azbil to capitalize

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- Viswesh Vancheeshwar
Industry Principal, Energy & Environment

on the growing opportunities in the smart building sector in Southeast Asia, enhancing its ability to serve customers and solidifying its reputation as a reliable provider of smart building solutions. Moreover, the company’s highly skilled teams work on-site and gain invaluable expertise, which helps it to extend its automation capabilities. By developing and refining its processes over time, Azbil perfected its approach.

It stays current with the latest trends, such as climate change, aging infrastructure, and new work models in post-pandemic life. Moreover, Azbil actively adopts cutting-edge technologies like artificial intelligence

(AI), big data, and cloud computing. The company develops unique automation capabilities by leveraging the latest technology, on-site know-how, and highly skilled human resources. As a result, it offers the most comprehensive portfolio in the market, spanning robust features and capabilities.

In particular, Azbil uses advanced heating, ventilation, and air conditioning (HVAC) control technology to create comfortable and healthy office and production spaces that boost business efficiency and labor productivity while minimizing environmental impact. Its comprehensive building solutions cover the entire life cycle of buildings, including construction, maintenance, renovation, and energy-saving features, to ensure stable operation and increase asset value over the long term. The solution suite includes sensor and measurement devices to measure room temperature/humidity; user-operated devices to set temperature, humidity, and other variables; building automation systems to monitor and manage the indoor environment, security, equipment, and energy consumption; security systems to ensure controlled access to building spaces; and regulators and controllers to maintain optimal conditions for both facilities and instruments. Azbil keeps facilities and devices in an optimal state and provides valves and actuators to adjust buildings’ hot/cold water or steam flow rates. Hence, Azbil utilizes sophisticated field devices and enhanced networks to enable system solutions that control and manage incoming data to optimize offices and buildings.

Demonstrated Leadership through Continuous Product Innovation

Azbil improves asset productivity, enhances interior spaces, and reduces energy consumption through three focus areas:

- **New Automation:** Utilizing data and promoting digital transformation to transition customers from automation to autonomy
- **Environmental and Energy:** Helping customers to become carbon neutral by leveraging independent and distributed energy resources through interconnected facilities
- **Life-cycle solutions:** Providing maintenance services over the life cycle of buildings that offer customers decision support and instructions when receiving alarms or complaints to mitigate the lack of human resources

The company regulates air circulation, simplifies processes, leverages automation, and optimizes resource and energy usage to achieve these goals. It closely monitors emerging market trends and evolving customer demands and responds with novel solutions. For example:

Azbil's **chiller plant digital twin** is an innovative tool that creates a virtual replica of the live chiller plant, allowing users to simulate optimization strategies in a digital environment. With the help of AI analytics, the digital twin enables users to achieve optimal results through valuable insights into chiller plant operations. Equipped with a built-in AI engine, the digital twin uses machine-learning deterioration detection technology to identify potential equipment issues and provides insightful recommendations aligning with users' operational strategies.

Azbil's **infrared array sensor system** displays the surface temperature of walls, floors, and ceilings on an easy-to-understand dashboard. This information is crucial in determining the room temperature in a building, enabling facility managers to identify hot spots and better control the air conditioning. Additionally, the system utilizes unique human-detection technology that uses infrared array sensors to detect humans, allowing air conditioning and lighting to start or stop. It can also regulate ventilation based on the number of people present. The system incorporates air conditioning control technology that immediately determines the appropriate air supply temperature and volume, using temperatures measured in a wide area rather than the usual temperature measurement by a single wall or pillar-mounted sensor. Hence, Azbil's innovative technology leads to significant energy savings for customers.

Presently, Azbil concentrates on promoting IoT and digital transformation, enhancing the connectivity between field devices in customers' operational sites and Azbil's system solutions for control and monitoring. This network helps in aggregating and processing the sensing information received by field devices in their systems, which enables control planning and monitoring of sites, optimizing the entire measurement and control system.

In addition, Azbil also develops individual technologies. For field devices, the company incorporates microelectromechanical systems, advanced measurement principles, and AI capabilities to create sensing devices with autonomous processing capabilities.

Lastly, Azbil uses cutting-edge technology in system solutions (like cloud systems and AI) to process the big data obtained at customers' sites, which conveys complex information accurately and effectively to

achieve total system optimization. To this end, Azbil aims to achieve more precise control of field devices by making them more user-friendly and compatible with control devices.

Frost & Sullivan finds that Azbil is well-positioned to capitalize on new growth opportunities, cementing its leadership in the smart buildings solutions industry.

Customer Service Excellence: The Rosetta Stone

With its customer-centric corporate philosophy, Azbil operates on the central tenet that its success depends on customer satisfaction. This philosophy permeates the company's daily practices. Its comprehensive offering covers a range of solutions, from consulting and sales proposals to engineering, installation, and services. In addition, it leverages sales, systems, field, and service engineers, customizing

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- Melvin Leong
Senior Director, Head of Homes & Buildings

each site's specific product, solution, or service to meet different requirements at various life-cycle stages, such as planning, operation, maintenance, improvement, and refurbishing.

Specifically, Azbil's service engineers are experts in the equipment and systems used by customers in various facilities, including buildings, plants, and factories. The teams conduct periodic inspections and maintenance to ensure optimal operation and promptly respond to emergencies. Azbil aims to shift from traditional labor-intensive services to knowledge-intensive services; therefore, it focuses on digital transformation-powered services (such as remote maintenance and control valve diagnostics),

drawing on extensive data and delivering actual results. Azbil brings together highly experienced and skilled teams who can help customers achieve their quality, cost, delivery, safety, and environment targets. Moreover, the company invests in developing professional personnel. It has crafted a systematic training program for measurement, control, and maintenance specialists and data scientists. The program helps Azbil's global service business adapt to country conditions and produce engineers who cater to country-specific needs, requirements, or customers. The curriculum includes education on project management (to strengthen execution skills) and IoT training (to improve engineering capabilities).

Moreover, Azbil actively develops new service operations tools to improve site inspections and ensure the effective maintenance of automated control devices. These tools help remotely collect data, analyze event outputs, and have offsite experts examine control operations. The company also collects and analyzes self-diagnostic information from the equipment to proactively propose preventive maintenance services to guarantee system reliability.

By increasing the added value of its services, Azbil strives to solve a broad range of customer issues while promoting new products and services. In addition, it shares advanced solutions and case studies from its operations worldwide to enhance customer satisfaction and tackle global environmental and social challenges.

As such, the company contributes to a sustainable society by identifying and understanding each country and region's diverse issues and challenges, providing effective solutions, and cultivating transparent and trusting relationships with stakeholders. Best practice examples include enhanced stakeholder dialogues through live, on-demand broadcasts (e.g., shareholder meetings, financial results briefings, and press conferences) and continuous global communications through digital channels.

Ultimately, Azbil commits itself to “human-centered” automation, placing customers at the center of its business strategy and operations. This approach establishes ongoing customer trust for long-lasting relationships throughout the service lifecycle.

Achieving Financial Success through a Customer-centric Approach

Azbil offers solution-oriented services in three main business segments: building automation, advanced automation, and life automation. The company initiates regular enhancements to its technologies and solutions to ensure optimal performance. It focuses on energy conservation and strengthens its capabilities by accelerating green transformation through new system solutions, cloud applications, and devices.

Azbil prioritizes global expansion. Its building automation division is enhancing its remote maintenance technology to monitor buildings overseas and provide efficient maintenance services with high added value. In its advanced automation business, Azbil is extending its reach in Southeast Asia by developing a comprehensive solutions-oriented valve business encompassing everything from the supply of control valve products to maintenance services. Moreover, the company provides added value solutions and services globally to advance its life-cycle solutions business and IoT-based services using big data and AI, such as monitoring anomalies and forecasting future conditions.

Examples of successful and significant projects deployed in 2022 and 2023 cover various countries in the region, such as:

Singapore: Azbil deployed two systems (i.e., its intelligent building management system and chiller plant optimization system) to help a client meet BCA's Green Mark super low energy (SLE) requirements at its headquarters. Furthermore, Azbil implemented its intelligent building management system at an academic institution, providing a unified platform with advanced features to turn the complex into a smart campus. Azbil also joined the Smart Urban Co-Innovation Lab led by CapitalLand and launched a program to develop an integrated building management system alongside the Singapore Economic Development Board.

Malaysia: For a large data center in Malaysia, Azbil successfully implemented a data center infrastructure management system to ensure efficient operation, as well as a central chiller plant control system to help improve its power usage effectiveness.

Thailand: Azbil implemented a monitoring control system for a district cooling plant, which serves 16 buildings, including offices, residential, commercial, and cultural facilities in central Bangkok. Azbil's solution helps to efficiently operate the chiller and thermal storage facilities by forecasting the cooling load from the next day's weather forecast and past demand data. Due to its impressive energy reduction, this project aims to acquire platinum status in Thailand's LEED Neighborhood Development program.

As a testament to its high client satisfaction rate, Azbil acquires many of its customers through word-of-mouth accolades, fueled by its exceptional customer-centric design and operational performance. The company has established a framework and policy for using its brand components worldwide to maintain a consistent corporate image and is improving its product designs and communication tools to expand its domestic and overseas business. In addition, the company is strengthening its global management systems for the product designs and communication tools that include intellectual property rights, serving as key touchpoints with customers. Azbil's products have received prestigious design awards both domestically and globally.

Azbil is at the forefront of the fiercely competitive smart building solutions space. With a deep-rooted history of purpose-fit innovation, the company shapes the industry's trends, impacting its role in the market. In 2022, the company achieved stellar sales growth. Azbil's building automation segment is the largest of its three main business segments, contributing to 46.4% of its net sales in FY2022. The building automation business had a surge in orders due to rising demand for urban redevelopment in Japan and increased post-pandemic investments in the region, including building solutions that offer a safe environment after the pandemic and are adaptable to new work styles. Azbil's building automation segment received orders worth 135,311 million yen, a 2.1% increase from the previous year's 132,511 million yen. Additionally, the company's sales increased by 7.3% year-on-year (YoY), amounting to 128,561 million yen. Azbil increased its research and development (R&D) investments in its building automation business by 11.6% to 4.8 billion yen in FY2022. Despite the increase in R&D expenses, its profitability increased impressively by 16% YoY, reaching 16,074 million yen, compared to the previous year's 13,862 million yen.²

The company achieved its prominent status as a leader in automation through the relentless pursuit of excellence. Prioritizing corporate governance, it recently implemented measures to strengthen the supervisory and auditing functions of the board of directors, improve management transparency and soundness, and clarify the structure of responsibility for executing duties. Consequently, Azbil transitioned from an entity with an audit and supervisory board to one with a three-committee board structure, which will ensure transparency in management decision-making while quickly identifying and acting on present and future business opportunities and risks. In addition, the company regularly disseminates financial and non-financial information, including its management plan, environmental, social, and governance initiatives, and product and service information.

Azbil's impressive growth momentum and trajectory are a testament to its customer-centric approach, innovative solutions, and exceptional implementation strategies, earning its clients' trust and loyalty and enabling it to capture more market share.

² Summary of Consolidated Financial Results for the Fiscal Year Ended March 31, 2023 (released by Azbil on 12 May 2023)

Conclusion

The market for smart building solutions in Southeast Asia is growing rapidly due to urbanization and flourishing economies. Facilities' owners prioritize energy efficiency and operational performance improvements, focusing on pandemic solutions, resilience, and green certifications. Additionally, the region is heavily investing in smart cities.

Overall, Azbil addresses these unmet needs with a strong leadership focus that incorporates customer-centric strategies and exemplifies best practice implementation. As a leading smart-building solution provider, Azbil improves asset productivity, enhances interior spaces, and reduces energy consumption through cutting-edge technologies, advanced demand management, innovative machine learning, and predictive control. In addition, it continues to develop unique automation capabilities by leveraging highly skilled human resources and on-site know-how, customizing each site's specific application, solution, or service to meet different requirements at various life-cycle stages (such as planning, operation, maintenance, improvement, and refurbishing). Azbil has also set itself apart by emphasizing environmental sustainability and transforming its customer experience approach from labor-intensive to knowledge-intensive. The company remains a trusted partner, earning a reputation for offering the best smart building solutions.

With its strong overall performance, Azbil earns Frost & Sullivan's 2023 Southeast Asia Company of the Year Award in the smart buildings solutions industry.

What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios Through Mega Trends:

Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first-to-market solutions and new growth opportunities

Leadership Focus: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

Best Practices Implementation: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

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Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

