PT. Mowilex Indonesia Recognized for

2021

Enabling Technology Leadership

Indonesia Paints and Coatings Industry Excellence in Best Practices



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. PT. Mowilex Indonesia excels in many of the criteria in the paints and coatings space.

AWARD CRITERIA	
Technology Leverage	Customer Impact
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

Evolving Market Presenting Ample Growth Opportunities

The Indonesian paints and coatings market is the largest in Southeast Asia, with the country's huge population (fourth most populous nation), rapid urbanization (approximately 68% of the population urbanized by 2025¹), and growing middle class (20% of the population is economically secure²) driving the overall market growth. Moreover, the mounting global and regional emphasis on environmental sustainability and public health increase the demand for bio-derived, water-based, low/zero volatile organic compounds (VOCs), and lead-free paints and coatings. Furthermore, the COVID-19 pandemic-induced rise in consumer awareness and consequent market need for germ-repelling and disinfecting products lead manufacturers to develop antimicrobial paints and coatings for residential, commercial, and industrial applications augmenting the market growth.

The burgeoning Indonesian paints and coatings sector, with domestic manufacturers accounting for nearly 70% of the total market³, is prone to supply chain volatility issues. Domestic companies face stiff competition from prominent multinationals protected against these supply chain problems with their global raw materials supply agreements. Local manufacturers that procure high-quality raw materials from North American and European suppliers are particularly susceptible to foreign exchange risks. Additionally, domestic companies cannot compete with foreign multinationals' innovation expertise and global research and development (R&D) capabilities. Moreover, the Indonesian market's regulatory

¹ Key Architectural Trends Determining Construction Materials Usage, Outlook 2021 (Frost & Sullivan, January 2021).

² Aspiring Indonesia —Expanding the Middle Class (The World Bank, January 2020).

³ Baseline Report- Elimination of Lead in Paint in Indonesia (Nexus3 Foundation, December 2019).

restrictions on direct product distribution to retailers and consumers result in a legacy dependence on external distributors, considerably impeding market penetration.

Frost & Sullivan foresees paints and coatings companies that continually introduce innovative, ecofriendly, low-toxicity, and high-performance paints and coatings products and devise novel solutions to address prevalent market challenges will register robust, sustainable growth in the Indonesian market.

The Indonesian Market's Sustainability Innovation Leader

"Additionally, Mowilex's innovation-led and R&D-driven approach reinforces its ability to address supply chain volatility issues. The company builds agility and reduces dependence on foreign suppliers by adapting its existing formulations using locally-procured, alternative raw materials without compromising end-product quality and characteristics."

- Mahendra Chahar, Senior Consultant - Chemicals, Materials & Nutrition (CMN)

Founded in 1970, Jakarta, Indonesia-headquartered PT. Mowilex Indonesia (Mowilex), a subsidiary of Asia Coatings Enterprises, Pte. Ltd., is a leading producer of premium paints and coatings in the country's decorative and architectural segments. Available at 3,000+ locations across Indonesia, the company offers high-quality, water-based interior/exterior paints and wood coatings with the optimal mix of aesthetics and functionality.

Mowilex entered its domestic paints and coatings space with the launch of Indonesia's first water-based paint product. Today, the company stands out against

its contemporaries with the most comprehensive product portfolio encompassing paints and coatings for its customers' every wall system need, from substrate masking and smoothing to coating layers. Mowilex further strengthens this differentiation by leveraging the inherent compatibility benefits of its holistic product range's formulations to develop higher performance offerings. For instance, the company recently launched a new exterior acrylic paint (Weathercoat Supreme) with up to an 18-year warranty (the longest in the Indonesian market) when combined with the rest of its wall system products (i.e., Mowilex Building Chemistry Alcaplast Skim Coat (AP-100) for skim coat, Alcaplast Repair (AP-800) + Alcabond for repair; and, Mowilex Precoat DR-31 Sealer).

Over its five decades of operations, Mowilex has successfully retained its position at the vanguard of introducing innovations to its domestic market. The company continually invests in R&D (personnel and equipment) to drive these product innovation efforts. Mowilex's in-house R&D capabilities consist of 18 home-grown chemists, eight color matchers, and a 7,000 square feet laboratory facility. The company supplements this internal expertise with innovation and product formulation support from its long-tenured principal suppliers and coating institutes in the United States (US), Europe, and the Asia Pacific. More recently, Mowilex is exploring collaborations with three US-based academic institutions to initiate knowledge and technology transfer to boost its in-house capabilities. The company's R&D efforts result in consistent launches of innovative paints and coatings (striving for a minimum of two new releases in addition to product upgrades per year). Mowilex released five novel products in 2021 and maintains a healthy pipeline of approximately 20 innovative launches planned for the next three years.

Additionally, Mowilex's innovation-led and R&D-driven approach reinforces its ability to address supply chain volatility issues. The company builds agility and reduces dependence on foreign suppliers by

adapting its existing formulations using locally-procured, alternative raw materials without compromising end-product quality and characteristics. For instance, Mowilex developed a substitute colorant for the imported transparent iron oxide red pigment utilized in its widely popular wood stain products. In addition to securing supply, this alternative raw material sourcing enables better pricing, product traceability, and quality control. These supply chain diversification efforts paid off as Mowilex successfully cushioned itself against the pandemic-related distribution disruptions and raw material shortages. Furthermore, the company is exploring backward integration to produce bio-derived water-based resins and binders to develop novel, eco-friendly products.

Mowilex's sustainability focus (as Indonesia's pioneer in eco-friendly and low toxicity paints and coatings) is its most crucial differentiator. The company is Indonesia's first certified carbon-neutral manufacturer, producing zero- and low-VOC paints and coatings. The company achieved this accreditation by purchasing carbon offsets in the marketplace in addition to adopting emission reduction measures (such as upgrading lighting, insulation, heating, ventilation, and air conditioning equipment at its facilities).

Most notably, Mowilex is unique in the Indonesian market owing to its voluntary initiative to produce and supply lead-free paints to its domestic customer base. The Indonesian National Standard limits the lead content in organic, solvent-based decorative paints at 600 parts per million (ppm) which is much higher than the World Health Organization's recommendation at 90 ppm. Recognizing the severe health implications of lead exposure, Mowilex led the international push to phase out the heavy metal in paints and coatings products in its domestic market by halting the production of its lead-based Mowilex Cat Kayu & Besi paints in 2019. The company followed the launch of the redeveloped, lead-free formulations (with safer oil/solvent-based elements below 90 ppm) of these popular wood and metal

"As a premium paints and coatings manufacturer, Mowilex is well-recognized in the Indonesian market for its emphasis on maintaining best-in-class product quality, matching and exceeding its large multinational competitors. The company's commitment to quality extends from sourcing the highest quality raw materials to Good Manufacturing Practices and robust quality control (QC) mechanisms."

- Sama Suwal, Best Practices Research Analyst paints with a replacement program (the "Mowilex is Surely Safe" campaign) aimed at recalling its old lead-based stock from store shelves across the country. Mowilex provides free replacements for all verified paints returned between September 1 and December 31, 2021.

Frost & Sullivan commends Mowilex's R&D-led efforts to continually introduce novel innovations into the Indonesian paints and coatings market. The company's breakthrough initiatives to develop high-performance, low-toxicity, and eco-friendly products to foster healthier buildings are particularly noteworthy.

Community-Centric Customer Focus Driving Long-term Growth

As a premium paints and coatings manufacturer, Mowilex is well-recognized in the Indonesian market for its emphasis on maintaining best-in-class product quality, matching and exceeding its large multinational competitors. The company's commitment to quality extends from sourcing the highest quality raw materials to Good Manufacturing Practices and robust quality control (QC) mechanisms. For

instance, Mowilex maintains exceptional color variability by measuring colors for its ready-mix products to a delta E of < 0.6, even for browns, yellows, and greens (at levels undetectable to the human eye). Furthermore, Mowilex implements a stringent QC process to ensure prompt customer complaint resolution. The R&D department handles formulation-related issues, and the Purchasing and Logistics team solves packaging and logistics-related problems. As a testament to its outstanding product and service quality, the company received only ten valid QC issues between 2019 and 2021. Mowilex settled these complaints through product replacement, customer follow-up, and technical site visits (in the cases of projects).

Moreover, Mowilex offers these premium quality products at a slight price advantage to its customers owing to its lower fixed cost relative to its foreign competitors. Additionally, Mowilex presents more affordable products through its Cendana® brand (with a recently expanded mid-tier product range), catering to the needs of a diverse customer base.

Mowilex delivers exceptional customer experiences by ensuring its offerings align with its domestic market's evolving needs. The company regularly collects feedback from retailers, applicators, and consumers through several channels, including third-party surveys, periodic internal reviews, bi-annual retail sales agent surveys (conducted by the company's 450+ sales agents), and annual shop surveys. Mowilex's Office of Continuous Improvement reviews the collected results to address any evident gaps. In addition to gauging customer satisfaction regarding existing product performance, competitive pricing, and technical support, these feedback mechanisms help the company direct its new product development roadmap. For instance, Mowilex launched a series of antimicrobial paints (Mowilex Emulsion Satin, Emulsion Gloss, and Cendana Antibacterial) in response to the COVID-19-related surge in customer demand for germ-repellant products. This specially-formulated silver-ion technology (proven to be 99.9% effective against viruses and bacteria) reinforced paints come in various finishes and offer superior protection against the spread of infectious diseases in internal environments. This offering aligns with Mowiley's efforts towards creating healthier homes for its customers.

Mowilex strives to establish itself as the most trusted Indonesian paints brand. The company builds customer trust in its products by maintaining transparent certifications in accordance with the most rigorous industry standards. For instance, the company is the first paints and coatings manufacturer in the Indonesian market to adopt voluntary VOC labeling standards based on air quality regulations in the US state of California (most stringent in the US). Additionally, Mowilex holds numerous other certifications (such as Technischer Überwachungsverein Nord, Singapore Green Label, and French Emission Certificate A+ rated products) as well as upcoming accreditations from Green Seal (USA) and the Asthma Allergy Friendly (AAF) Certificate, that attest to the public health and environmental safety impact of its products. Products certified to Green Seal (USA) standards abide by strict limits of VOCs to reduce exposure to indoor air pollutants and protect human health. Similarly for paint product to be AAF certified, strict standards for appropriate levels must be met for physical performance, emission of VOCs, and allergenic and sensitizing chemicals must be as low as possible or non-existent. Furthermore, Mowilex's several corporate social responsibility activities improve brand perception, ultimately influencing brand loyalty. For instance, Mowilex donated 294,383 liters of paint, volunteered 6,365 hours of employee time, funded the building of 20 homes, and repainted schools between 2016 and 2021.

Frost & Sullivan believes Mowilex's focus on sustainability, product quality, and customer satisfaction will increasingly drive homeowners and property developers, especially for larger projects, to select its products over its competitors. Moreover, the company will witness robust growth as more customers appreciate the long-term impact of the company's sustainability initiatives.

Conclusion

Supply chain volatility issues and a legacy dependence on external distributors impede the growth of the Indonesian paints and coatings market. Jakarta-headquartered PT. Mowilex Indonesia (Mowilex) is a leading producer of premium paints and coatings in the country's decorative and architectural segments, offering high-quality, water-based interior/exterior paints and wood coatings with the optimal balance of form and function. Mowilex retains its unique position at the vanguard of introducing innovations to its domestic market, especially on the sustainability front, through its consistent research and development efforts. These endeavors result in several pioneering launches of high-performance, low-toxicity, and eco-friendly products in Indonesia. Moreover, Mowilex is well-recognized for its emphasis on maintaining best-in-class product quality, matching and exceeding its large multinational competitors. This focus on product quality and adherence to stringent industry standards result in customer loyalty to the company's products, driving long-term success for Mowilex.

With its strong overall performance, PT. Mowilex Indonesia earns Frost & Sullivan's 2021 Indonesia Enabling Technology Leadership Award in the paints and coatings industry.

What You Need to Know about the Enabling Technology Leadership Recognition

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

Best Practices Award Analysis

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

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

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- 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

OPPORTUNITY UNIVERSE Capture full range of growth opportunities and prioritize them based on key criteria OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities FLANNING & IMPLEMENTATION Execute strategic plan with milestones, targets, owners and deadlines OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities GO-TO-MARKET STRATEGY Translate strategic alternatives into a cogent strategy

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)

