States, Markets, and Regional Integration

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Executive Summary

This report presents key findings from a multi-country firm-level survey conducted across 2023 and 2024 in seven Southeast Asian economies: **Singapore**, **Cambodia**, **Indonesia**, **Laos**, **Malaysia**, **the Philippines**, and **Vietnam**. As Southeast Asia's economies pursue deeper regional integration and adapt to global shifts in technology, sustainability, and trade, the private sector plays a critical role in shaping outcomes on the ground. This study investigates firm perspectives on four core areas of economic transformation: automation and digitalisation, sustainability practices, regulation and governance, and cooperation through regional institutions. Drawing on comparable data across countries and sectors, the report offers evidence-based insights to support policy makers, business leaders, and scholars in understanding how Southeast Asian firms are navigating integration, responding to evolving policy frameworks, and positioning themselves for future growth.

Respondent Firm Information

- Small and medium-sized enterprises (SMEs) dominate across the region, though larger firms are notably present in Singapore.
- Domestic ownership is predominant across countries, while public listing remains relatively uncommon.
- The investment footprints of foreign firms are highly regionalized, aligning with trade and production networks. Nearly 80% of respondent firms with foreign ownership are headquartered in ASEAN or the broader Asia-Pacific region, and their subsidiaries are also primarily located within Southeast Asia.

Automation and Digitalisation

- Firms in Singapore actively engage in digitalisation, particularly in service delivery and customer interaction. Over two-thirds of Singapore-based firms report some degree of automation, though current applications remain modest in scope.
- Advanced technologies are adopted selectively; approximately one in five firms reports using industrial robots or adopting AI and machine learning.
- More than 25% of firms report productivity improvements from automation.
- Most Singapore-based firms plan to moderately increase automation over the next three years. They anticipate neutral effects on employment, alongside further gains in productivity. Comparatively, firms in Malaysia, Vietnam, and Indonesia report stronger productivity gains and more ambitious automation plans.
- Singapore-based firms exhibit relatively high levels of digital market integration, with a larger share of business activity conducted online compared to peers in Vietnam and Indonesia.
- Firms in Singapore also report higher rates of exposure to digital policies, which are generally viewed favourably. Negative perceptions tend to stem from uncertainties or anticipated compliance costs.

- The incremental and controlled nature of digital transformation in Singapore highlights the importance of continued policy support—particularly in helping SMEs enhance digital capabilities and navigate evolving regulatory environments.

Sustainability

- Regulatory mandates and customer expectations are more effective in motivating sustainability responses among Singapore-based firms than civil society pressure.
- While firms recognise the value of environmental responsibility, investments remain modest in general or reputational scenarios. Willingness to invest increases significantly when customer expectations are introduced.
- Technological upgrades are favoured under general or regulatory pressure, while internal training and process reforms are preferred under reputational or client-driven conditions.
- Manager training consistently emerges as a preferred strategy, especially in market-driven and reputational scenarios.
- Hiring dedicated environmental staff ranks lowest in preference, suggesting a potential need for shared service models or targeted external support.

Regulation and Governance

- Tax-related concerns dominate the regulatory landscape across countries.
- Firms across Southeast Asia prefer working with business associations rather than independently or solely with other firms.
- Key obstacles to export growth and overseas expansion include cost, procedural complexity, and regulatory compliance burdens. Firms express demand for financial support and export-readiness assistance.
- Fewer Singapore-based firms possess Rules of Origin certificates relative to their ASEAN peers, largely due to limited applicable FTAs and smaller export volumes. Firms highlight the need for expanded FTA coverage and more targeted guidance from government agencies and business associations.

Regional Outlook

- The ASEAN Economic Community (AEC) has enhanced export access, investment flows, and digital connectivity across the region.
- Firms call for greater regulatory interoperability, improved mobility for skilled labour, and more efficient trade and investment processes.
- Common challenges include uneven digital infrastructure, weak climate resilience, and persistent non-tariff barriers.
- While businesses are supportive of ASEAN economic integration, they seek stronger institutional responsiveness and more effective engagement with the private sector.

Firms on the Frontlines: Surveying Regional Economic Integration in Southeast Asia

As the global economic landscape shifts toward Asia, firms across Southeast Asia are increasingly at the forefront of regional transformation. This report draws on original survey evidence from manufacturing firms in seven Southeast Asian economies to explore how businesses are responding to new opportunities and challenges posed by regional economic integration. By examining firms' experiences with free trade agreements, digital transformation, sustainability initiatives, and the evolving role of regional economic institutions, this study sheds light on how Southeast Asia's private sector is navigating—and shaping—the region's economic future.

Rapid and sustained economic growth across Asia is shifting the global economic centre of gravity. As the World Trade Organization (WTO) has struggled to advance a new multilateral trade round, regional economic blocs have risen in prominence, and nowhere more so than in Southeast Asia. The region is now the third-largest economy in Asia and the fifth-largest globally[1], accounting for a GDP of approximately US$3.8 trillion in 2023[2], along with a growth rate of 3.98% for ASEAN recorded in 2023.[3] Among the larger Southeast Asian economies, such as Indonesia and Vietnam, a rapidly expanding middle class is creating new consumer markets and attracting foreign investment.

Against this backdrop, a research study funded by the Ministry of Education (MOE) under the MOE Academic Research Fund Tier 2 grant programme[4] was conducted between 2023 and 2024 by scholars from the National University of Singapore (NUS), Duke University, the University of California–Los Angeles (UCLA), the University of Southern California (USC), and the National University of Malaysia (Universiti Kebangsaan Malaysia). The study surveyed manufacturing firms and firms engaged in manufacturing activities across seven Southeast Asian countries—Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, and Vietnam—all of which are member states of the Association of Southeast Asian Nations (ASEAN).

The project aims to understand the challenges that manufacturing firms in Southeast Asia face, as well as their views on the usefulness of free trade agreements, business transformation through digitalisation and automation, human capital development, sustainability, and market integration within the region. Conducted during a period of heightened global economic volatility, the survey provides critical insights into how firms interact with the changing economic climate and global business environment.

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[1] *Investing in ASEAN 2023*, pg 4. ASEAN Secretariat, 2023. Accessed from https://asean.org/book/investing-in-asean-2023/.
[2] *ASEAN Key Figures 2024*, pg 33-37. ASEAN Secretariat, 2024. Accessed from https://asean.org/serial/asean-key-figures-2024/.
[3] *ASEAN GDP*. ASEANStats Key Indicators. Accessed from https://data.aseanstats.org/asean-key-gdp.
[4] Award Number MOE-T2EP402A20-0005.

Survey Methodology and Sample

This section outlines the survey implementation process and describes the distribution of respondent firms across the seven Southeast Asian countries surveyed.

The survey was administered primarily through Qualtrics, allowing the research team to program complex question logic, design more intricate question types, and provide accessible participation options for firms.

The study surveyed firms in seven Southeast Asian countries, largely targeting manufacturing firms and firms engaged in manufacturing activities. The survey was deployed in Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, and Vietnam. These countries were selected to reflect the region's diversity in levels of economic development, firm size, and sectoral specialisation.

Data collection was supported by local survey firms and institutions in each participating country. In Singapore, the National University of Singapore (NUS), in collaboration with the Institute of Policy Studies (IPS) at the Lee Kuan Yew School of Public Policy (LKYSPP), led the fieldwork, managing outreach to firms, coordinating survey dissemination, and providing assistance to participating firms. To broaden outreach, the NUS team contacted a range of trade associations and chambers (TACs), including the Singapore Business Federation (SBF), American Chamber of Commerce in Singapore (AmCham Singapore), Association of Small and Medium Enterprises (ASME), SME Centre at Singapore Manufacturing Federation (SMF), Singapore International Chamber of Commerce (SICC), British Chamber of Commerce Singapore (BritCham Singapore), Singapore Chinese Chamber of Commerce & Industry (SCCCI), and the ASEAN-China Business Council. These TACs assisted with survey distribution and encouraged participation among their membership networks.

Respondents were invited via email and direct phone outreach, with the option to complete the survey independently through Qualtrics or with the assistance of a representative either in person or by phone. Responses collected on paper were subsequently entered into the Qualtrics platform to ensure consistency across the dataset.

The distribution of respondents across the seven participating countries is summarised in Table 1.1. To enhance data quality, the research team applied minimum response thresholds: only surveys with at least 25% of questions completed were considered valid. In Singapore, a total of 209 responses were received, of which 101 met the 25% completion threshold and were included in the analysis.

Survey rollout occurred across 2023 and 2024, with data collection in Singapore primarily concentrated in 2024. Data collection across all countries was completed by December 2024.[5]

[5] For a complete overview of the source data for this report, please refer to the Appendix.

Table 1.1 Number of Respondent Firms in Each Surveyed Country

Country	Local Survey Partner	Number of Respondent Firms
Singapore (SG)	Institute of Policy Studies, Lee Kuan Yew School of Public Policy	101
Cambodia (KH)	Indochina Research Cambodia (IRL Cambodia)	501
Indonesia (ID)	Katadata Insight Center	500
Laos (LA)	Indochina Research Laos (IRL Laos)	152
Malaysia (MY)	Merdeka Center for Opinion Research	518
Philippines (PH)	University of the Philippines Los Baños	176
Vietnam (VN)	Development and Policies Research Center (DEPOCEN)	378
Total		2,326

Firm Size

Firm size, measured by the number of full-time employees, varies significantly across the seven countries surveyed, reflecting different levels of economic development and industrial structure. Across the region, the survey sample is skewed towards smaller firms: in five out of seven countries, firms with 50 or fewer employees comprise more than half of all respondents. Figure 1.1 summarises the distribution of firm sizes across countries.

Singapore's firm size distribution reflects the dual structure of its economy. While a majority of respondents are classified as small and medium-sized enterprises (SMEs), the country also displays a substantial representation of large firms. Using Singapore's SME definition (i.e., firms with no more than 200 employees), 76.2% of respondents qualify as SMEs, while 23.8% are non-SMEs.

Notably, 10.5% of firms in the Singapore sample employ over 1,000 full-time employees, and another 11.4% fall in the 101–200 range. At the same time, nearly half (48.6%) of respondents are from smaller firms employing 50 or fewer employees. This diversity highlights the coexistence of globally competitive multinational corporations and a robust SME base in Singapore's manufacturing sector.

In nearly every country in the survey, firms with 50 or fewer employees make up the largest portion of the sample. In Indonesia, for example, 46.2% of respondent firms have 10 or fewer

employees—the highest such share for this firm size among all countries surveyed. An additional 25.8% of Indonesian firms fall in the 11–50 employee category, meaning more than 70% of the national sample is composed of micro and small enterprises. Larger firms are rare, with those employing more than 500 people comprising less than 1% of Indonesia's sample.

Laos, the Philippines, Malaysia, Vietnam and Cambodia also show a strong concentration of small firms, particularly those with 11–50 employees. This size category accounts for:

- 48.0% of firms in Laos
- 48.3% in the Philippines
- 34.9% in Malaysia
- 32.3% in Vietnam
- 28.3% in Cambodia

These firms often fall within the lower end of SME definitions and typically operate in light manufacturing, services or assembly-based activities. Their scale may be modest, but their structural importance to domestic industry is significant.

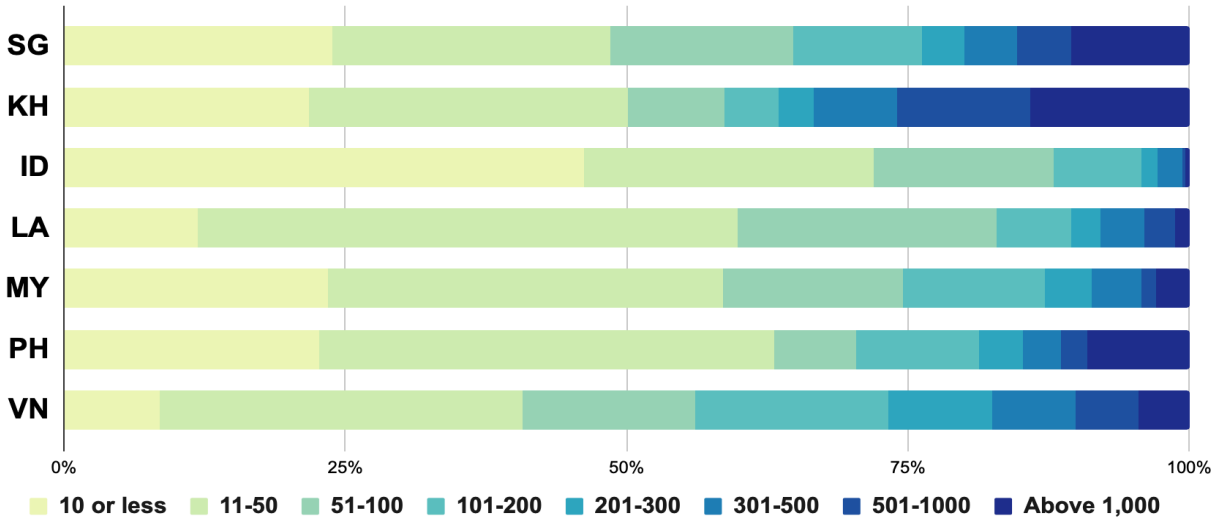
Applying national SME definitions also shows the predominance of small and medium-sized enterprises across all surveyed economies. Indonesia has the highest proportion of SMEs in the respondent pool, at 88.0%.[6] Other countries with similarly high SME shares include:

- Malaysia: 86.9%[7]
- Laos: 82.9%[8]
- Vietnam: 82.6%[9]
- Philippines: 81.3%[10]
- Cambodia: 58.7%[11]

Patterns across the seven countries highlight the structural centrality of SMEs in Southeast Asia. These firms dominate the business landscape, serve as primary employers and represent the core of the region's productive economy. Understanding their constraints, needs and engagement with regional integration is therefore essential for designing responsive trade and industrial policies.

[6] Indonesia describes SMEs as not more than 99 employees.
[7] Malaysia defines the employee threshold for SMEs in manufacturing as being not more than 200 employees.
[8] Laos defines the employee threshold for SMEs in manufacturing as not more than 99 employees.
[9] Vietnam defines the employee threshold for SMEs in manufacturing as not more than 300 employees.
[10] Philippines describes SMEs as not more than 199 employees.
[11] Cambodia describes SMEs as not more than 100 employees.

Figure 1.1 Size of Respondent Firms
(Measured in Number of Full-time Employees)



Sectoral Composition of Respondent Firms

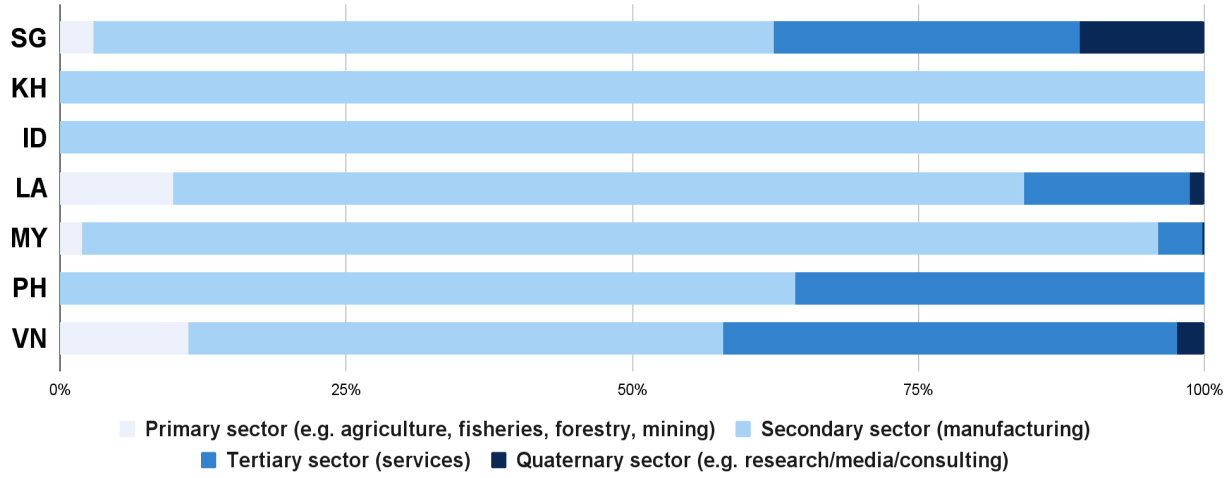
Although the survey primarily targeted firms engaged in manufacturing activities, respondent firms span a wider range of economic sectors. The distribution varies considerably across countries, with most firms classified in the secondary sector, but a notable presence in the primary, tertiary and quaternary sectors in several cases. Figure 1.2 illustrates this cross-country distribution by sector. Respondent firms in Singapore exhibit the most diverse sectoral distribution among the seven countries surveyed. While a majority (59.4%) fall within the secondary sector, a substantial share (26.7%) operate in the tertiary sector, and another 10.9% are engaged in quaternary sector activities, which is the highest proportion recorded across all countries. Firms in the quaternary sector include those involved in research, consulting and other knowledge-intensive functions. The low share of Singapore respondent firms in the primary sector (3.0%) aligns with the country's production structure, which is concentrated in technology-intensive manufacturing and globally integrated service industries.

- In both Cambodia and Indonesia, 100% of respondent firms are classified in the secondary sector.
- Malaysia shows a similarly focused profile, with 94.0% of respondent firms also operating in the secondary sector.
- Respondent firms in Vietnam and the Philippines show a more service-oriented sectoral structure, with 39.7% and 35.8%, respectively, operating in the tertiary sector—the highest among all countries after Singapore. These firms likely include logistics providers, maintenance services and business support activities connected to manufacturing.
- Laos has the highest proportion of respondent firms in the primary sector, at 9.9%, suggesting a stronger integration of agriculture, fisheries or extractive sectors into its

industrial base. It also has a modest share of firms in the tertiary (14.5%) and quaternary (1.3%) sectors.

The composition of respondent firms in each country thus reflects its sectoral linkages and national economic structures. For instance, the significant share of Singapore's respondent firms in both the tertiary and quaternary sectors points to the country's service and knowledge-intensive capabilities, which are likely the result of policies that promote services[12] as well as research and innovation.[13] Likewise, the considerable share of firms in Vietnam and the Philippines' secondary and tertiary sectors also reveal strong manufacturing-service linkages. By contrast, Cambodia, Indonesia and Malaysia are more narrowly centred around traditional manufacturing. These patterns highlight the sectoral diversity and developmental heterogeneity across Southeast Asia, with important implications on how firms engage with value chains, trade agreements and regional integration frameworks.

Figure 1.2 Sectoral Distribution of Respondent Firms



[12] The Singapore government has been providing a variety of grants and incentives to various services, such as the goods and service tax (GST) exemptions for financial services and tourism grants for tourism and hospitality services. From *Supplies Exempt from GST*, Inland Revenue Authority of Singapore, accessed from https://www.iras.gov.sg/taxes/goods-services-tax-(gst)/charging-gst-(output-tax)/when-is-gst-not-charged/supplies-exempt-from-gst; and *Overview of Assistance Programmes*, Singapore Tourism Board, accessed from https://www.stb.gov.sg/licensing-support/assistance-programmes/overview-of-assistance-programmes.

[13] Notably, since 1991, Singapore has been investing a significant amount into research and development to upgrade existing industries and catalyse new growth areas, thereby driving economic transformation. The latest Research, Innovation and Enterprise 2025 Plan has been allocated a budget of S$28 billion. From *RIE 2025 Handbook,* National Research Foundation, Singapore, accessed from https://www.nrf.gov.sg/rie-ecosystem/rie2025handbook/.

Manufacturing Activities of Respondent Firms

Respondent firms in the survey were asked to identify the nature of their primary manufacturing activity. Based on sectoral classifications, firms were grouped into four broad categories:

- Capital-intensive manufacturing: e.g., electronics, pharmaceuticals, technology hardware, capital goods
- Labour-intensive manufacturing: e.g., food processing, home furnishings, apparel
- Resource-based manufacturing: e.g., chemicals, construction materials, wood and paper products
- Other types of manufacturing: activities not falling cleanly into the above categories

These categories reflect differences in production inputs, industrial capabilities and sectoral specialisation. The distribution of these manufacturing types across countries is illustrated in Figure 1.3.

Respondent firms in Singapore report the highest proportion engaged in capital-intensive manufacturing, at 48.8%—a clear outlier in the region. These include firms producing electronics and electrical equipment, pharmaceuticals, technology hardware and machinery. Another 23.3% of Singapore-based firms operate in "other" types of manufacturing, possibly indicating emerging or hybrid sectors that are not easily categorised under traditional classifications. This may be indicative of the effect of existing policies aimed at making manufacturing in Singapore more high-tech, innovative and profitable by 2030.[14]

Relatively fewer firms in Singapore report activity in labour-intensive (14.0%) and resource-based (14.0%) sectors. The concentration in capital-intensive and unclassified sectors reflects Singapore's positioning as a regional production hub for high-value, knowledge-intensive industries, consistent with its national emphasis on advanced manufacturing, innovation, and global supply chain integration.

- Respondent firms in Cambodia, Indonesia and Laos include the highest shares of labour-intensive manufacturing:
    - Indonesia: 81.6%
    - Cambodia: 70.9%
    - Laos: 59.6%

These countries' manufacturing profiles are anchored in sectors such as food processing, apparel and home furnishings, industries that rely heavily on low-cost labour.

- Respondent firms in Vietnam and Malaysia include the highest shares of resource-based manufacturing:
    - Vietnam: 38.5% and Malaysia: 25.1%

[14] *Singapore Economy 2030*, Ministry of Trade and Industry, accessed from https://www.mti.gov.sg/COS-2024/Committee-of-Supply-2024/Singapore-Economy-2030.

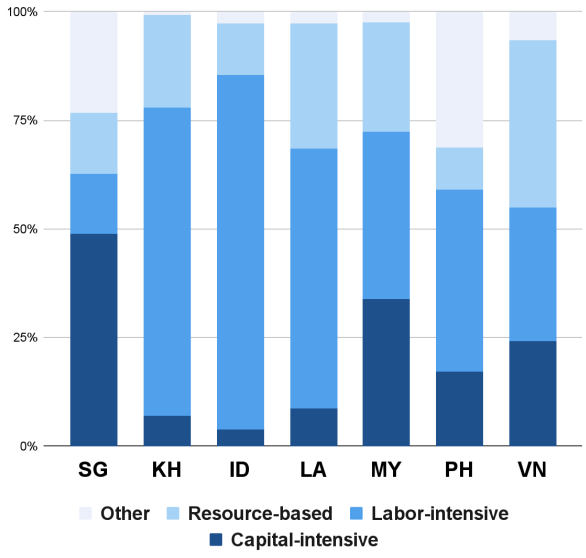
These figures include firms producing chemicals, construction materials, and paper products, indicating integration with resource extraction or agro-industrial inputs.

- The Philippines stands out with the highest proportion of firms in “other” manufacturing activities (31.3%), suggesting greater industrial heterogeneity and more diverse classifications not easily captured by the other categories.
- Capital-intensive manufacturing, while dominant in Singapore, also appears with moderate frequency in Malaysia (33.8%) and Vietnam (24.3%), highlighting emerging capabilities in more advanced production systems.

The distribution of manufacturing activities among respondent firms reflects the significant variation in industrial specialisation across Southeast Asia. Singapore is clearly positioned as a regional centre for capital-intensive and technologically advanced manufacturing, while Cambodia, Indonesia and Laos continue to rely heavily on labour-intensive sectors. Vietnam and Malaysia bridge the gap with more diversified profiles, including notable shares in resource-based and capital-intensive sectors. The Philippines, with its higher share of “other” manufacturing activities, may reflect a more dispersed industrial base or newer growth segments.

These differences reflect not only national resource endowments and labour markets but also broader trajectories of industrial upgrading and participation in global value chains. Understanding these profiles provides essential context for interpreting firm behaviour, regional trade preferences and integration outcomes across the ASEAN region.

Figure 1.3 Manufacturing Activities of Respondent Firms



Firm Ownership

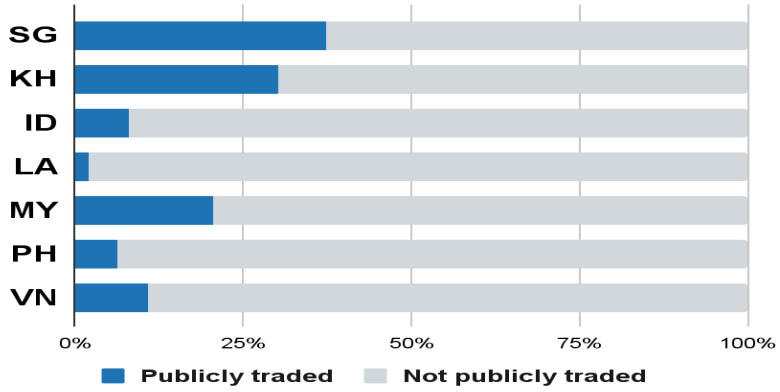
Publicly Listed Firms. Ownership structure is an important dimension of firm organisation, shaping access to capital, regulatory obligations, and strategic outlook. One key indicator of firm structure is whether a company is publicly listed, meaning its shares are traded on a stock exchange and accessible to a broad investor base. As shown in Figure 1.4, publicly listed firms constitute a minority of respondent firms across Southeast Asia, though with notable variation across countries.

Singapore reports the highest proportion of publicly listed respondent firms, at 37.4%. This reflects Singapore's role as a regional financial hub, with deep capital markets, a transparent regulatory framework and strong investor protections. The relatively high share of publicly traded firms aligns with Singapore's emphasis on corporate governance and international capital access, and its positioning as a headquarters economy for global and regional firms.

- In Malaysia, 20.5% of respondent firms are publicly listed, indicating moderate engagement with public capital markets.
- Public listings are much less common in the other surveyed countries. In Indonesia, only 8.0% of firms are publicly listed; in Vietnam, 10.9%; and in the Philippines, just 6.3%. Laos reports the lowest proportion, with only 2.0% of firms listed—consistent with its smaller and less developed financial sector.

Across the region, private ownership remains dominant among respondent firms, particularly in middle-income economies with less mature capital markets. Singapore's markedly higher share of publicly listed firms highlights the country's advanced financial infrastructure and global connectivity. By contrast, other economies in the region show more limited reliance on public equity financing. These patterns reflect deeper structural differences in financial development, firm size and formality, and institutional capacity, all of which influence how firms raise capital and position themselves in domestic and international markets.

Figure 1.4 Publicly Listed Firms



Foreign Ownership. The extent of foreign ownership among firms offers a useful lens into economic openness, global integration, and the investment climate in Southeast Asia. While most respondent firms across the region are domestically owned, the presence and structure of foreign ownership vary considerably across countries. Figures 1.5 and 1.6 summarise both the incidence and depth of foreign ownership among firms surveyed.

Respondent firms in Singapore report a notably high share of foreign-owned firms, with 69.7% indicating some level of foreign equity ownership. Among these, a large proportion (66.7%) are fully foreign-owned, and an additional 23.1% report majority foreign ownership (with foreign ownership ranging from 50% to 99%). A smaller group of firms fall into the minority foreign-owned category, including 6.4% with foreign ownership shares between 10% and 49%.

This ownership structure is consistent with Singapore's long-standing role as an open and internationally connected business environment. The high levels of foreign equity among respondent firms reflect the city-state's emphasis on global capital flows, regional headquarters functions and participation in multinational supply chains.

- In most other countries, domestic ownership predominates. In Indonesia, 99.0% of respondent firms are domestically owned, the highest rate in the survey.
- Vietnam (94.4%), the Philippines (91.0%), and Malaysia (86.7%) also report high rates of local ownership. In Laos, 77.8% of respondent firms are domestically owned.
- Cambodia reports a lower rate of domestic ownership, at 61.1%, with 38.9% of respondent firms indicating some level of foreign ownership. Among these foreign-owned firms, 43.2% are fully foreign-owned, and 37.0% are majority foreign-owned (with foreign ownership ranging from 50% to 99%). This pattern is consistent with Cambodia's economic reliance on foreign direct investment, particularly in export-oriented manufacturing industries such as garments, footwear and bicycles, where a majority of large firms are known to be foreign-owned.
- Among firms with foreign ownership in these countries, majority ownership is relatively uncommon. For instance, in Indonesia, while 1.0% of firms report foreign ownership, 25% of those fall in the 1–9% share range, indicating relatively limited foreign stakes.
- In Malaysia, more than half (55.3%) of foreign-owned respondent firms are fully foreign-owned, while a smaller proportion (26.6%) are majority foreign-owned.
- In Vietnam, while foreign ownership overall is limited, those firms that are foreign-owned tend to be fully so (73.2%), suggesting fewer joint ventures or partial stakes.

Across Southeast Asia, domestic ownership remains the norm among surveyed firms. However, ownership structures vary significantly, reflecting different policy environments, stages of capital market development and degrees of integration with global production networks. Singapore's relatively high incidence of fully foreign-owned firms points to its established role as a centre for

Figure 1.5 Foreign Ownership of Respondent Firms

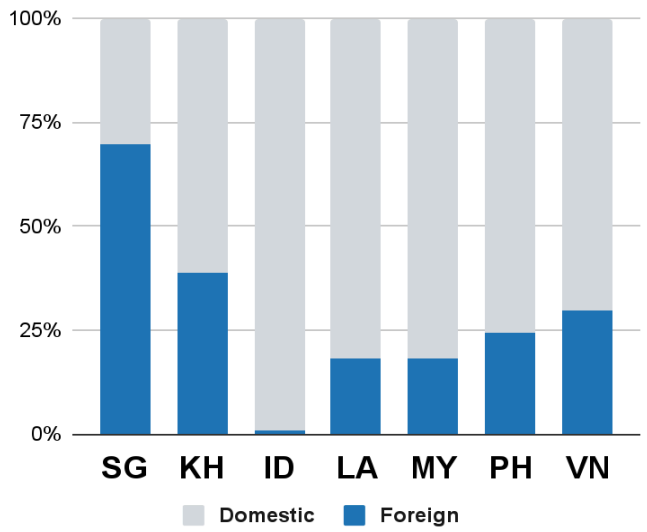
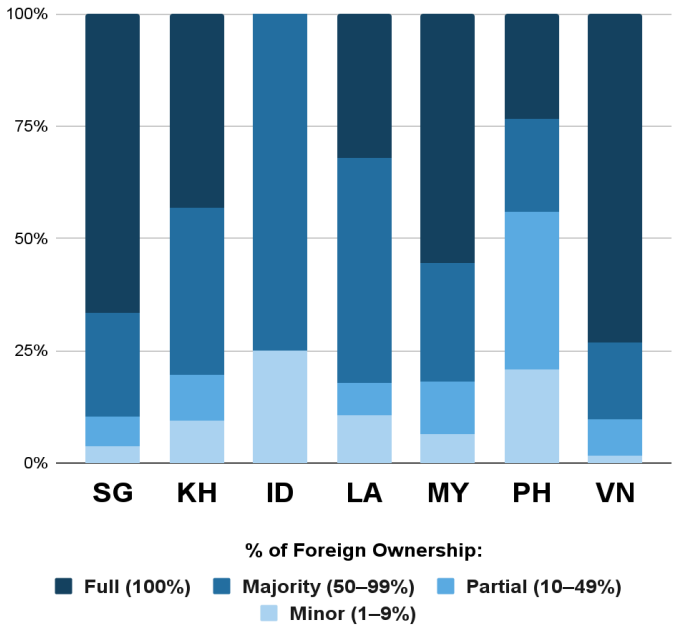


Figure 1.6 Foreign Ownership Shares in Respondent Firms

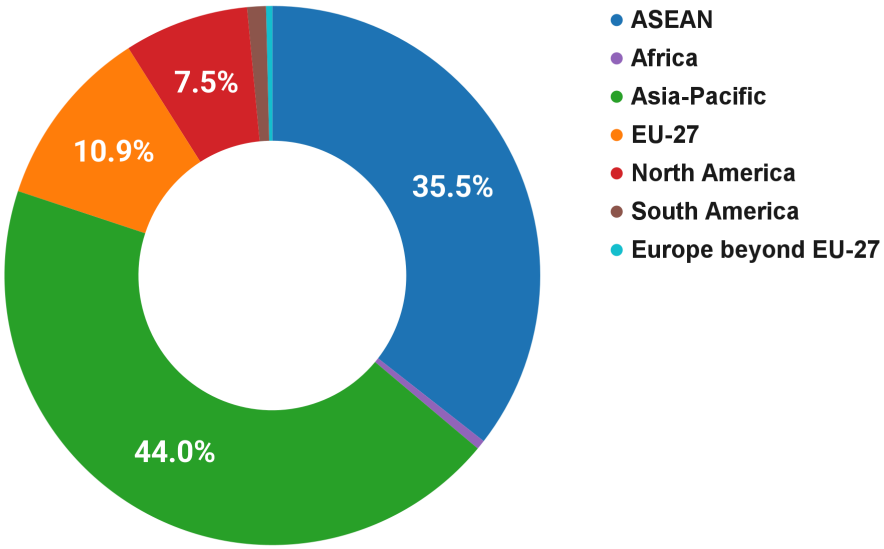


regional investment and multinational activity. Cambodia, while still majority domestically owned, also demonstrates comparatively high levels of foreign ownership, consistent with its openness to FDI in key manufacturing sectors. By contrast, economies such as Indonesia, Vietnam, and the Philippines report much lower levels of foreign equity participation, suggesting a stronger reliance on domestically controlled business sectors.

Headquarters of foreign firms. Among respondent firms with foreign ownership, the Asia-Pacific region emerges as the most common headquarters location, accounting for 44% of all foreign firms in the sample. The ASEAN region follows closely at 35.5%, meaning that nearly 80% of foreign-owned firms are headquartered within Asia. This underscores the strong regional embeddedness of investment and ownership networks across Southeast Asia. Figure 1.7 presents the regional distribution of foreign firm headquarters.

Headquarters located outside of Asia are comparatively rare in this respondent sample. Only 0.4% of respondent firms are headquartered in non-EU Europe, and 0.6% in Africa, pointing to limited economic ties and investment flows between these regions and Southeast Asia. While the representation of North American and European (EU-27 and non-EU) headquarters is more modest relative to Asia, it remains a significant component of the foreign investment landscape.

Figure 1.7 Headquarters of Foreign Firms



Foreign subsidiaries. The incidence of foreign subsidiaries among respondent firms remains limited across most countries in the survey. In four out of seven countries—Laos, Malaysia, the Philippines and Vietnam—only 9–10% of respondent firms report owning foreign subsidiaries. Indonesia reports the lowest incidence, at just 0.4%. These figures are summarised in Figures 1.8 and 1.9.

By contrast, Singapore is notable for its high level of internationalisation: 66.0% of respondent firms report having foreign subsidiaries. This is substantially higher than in any other surveyed country and reflects Singapore's role as a base for regional headquarters and global business operations.

Across all countries, firms with subsidiaries abroad most commonly operate within the ASEAN region. In every country, at least 20% of foreign subsidiaries are located in another ASEAN member state, and in Indonesia, this figure reaches 100%, indicating a highly regionalised business focus. This trend highlights the continuing importance of intra-ASEAN integration and cross-border supply chains, and the facilitation of regional operations through existing trade and investment ties.

For respondent firms with subsidiaries outside of ASEAN, patterns vary:

- Laos leans towards other non-ASEAN Asian countries, with 29.4% of its subsidiaries situated in this broader regional group.
- The Philippines reports the highest share of subsidiaries outside Asia, at 28.9%, suggesting broader global linkages relative to other countries.

Figure 1.8 Respondent Firms with Foreign Subsidiaries

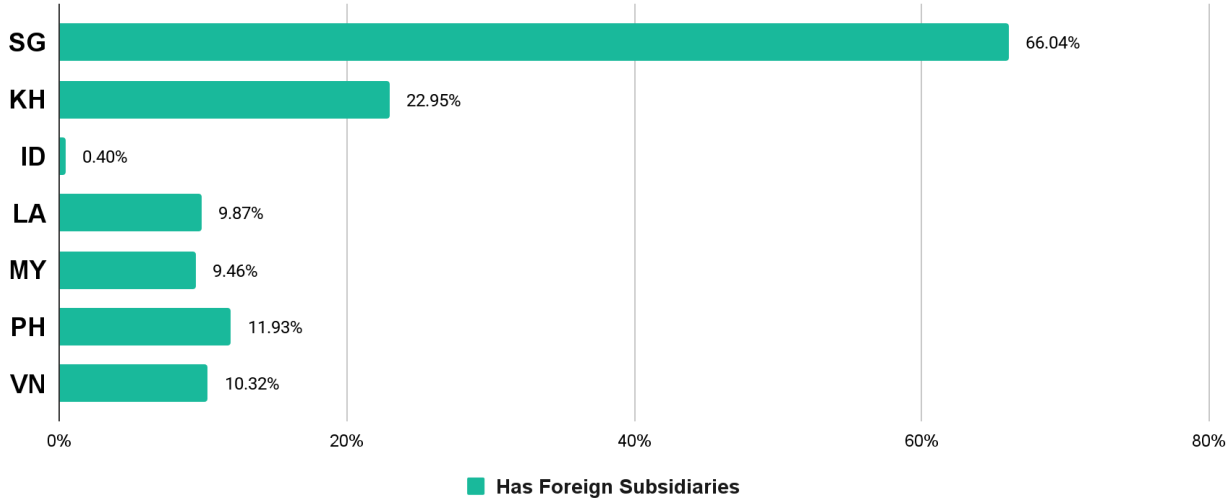
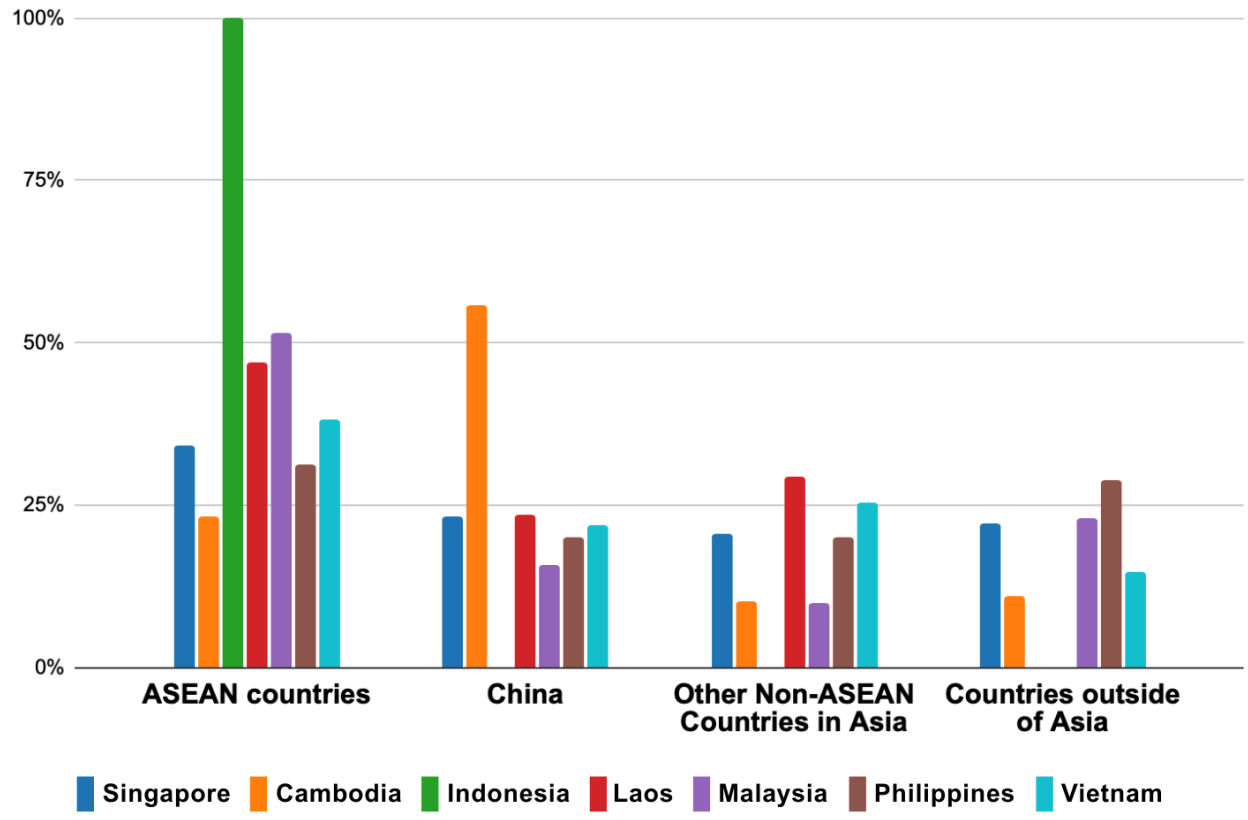


Figure 1.9 provides a breakdown of subsidiary locations by region and country. Singapore again presents a distinctive profile: its firms maintain a balanced global presence, with approximately 20–23% of subsidiaries spread across ASEAN, China, non-ASEAN Asia and countries outside Asia. This relatively even distribution reflects Singapore's function as a globally connected hub, capable of sustaining outward operations across multiple regions without heavy dependence on any single market.

The geographic footprint of foreign ownership and subsidiary operations in Southeast Asia reflects regional proximity, integration, and strategic depth. While most firms are owned and headquartered regionally (i.e., within ASEAN or the broader Asia-Pacific), the patterns of outward investment vary—from the concentrated regional focus of Indonesian firms to the globally distributed strategies observed among Singapore-based firms. These differences point to varying degrees of globalisation, industrial upgrading and firm-level capability to engage in cross-border operations.

Figure 1.9 Location of Foreign Subsidiaries



Summary: Survey Methodology and Sample

- Geographic Scope: The survey was conducted across seven Southeast Asian economies — Singapore, Cambodia, Indonesia, Laos, Malaysia, the Philippines, and Vietnam — between 2023 and 2024.
- Firm Size: The sample includes a broad representation of micro, small, and medium-sized enterprises (MSMEs), which dominate the regional business landscape. Larger firms are also included, particularly in Singapore.
- Sectoral Composition: Respondent firms span diverse sectors, with significant representation from manufacturing, services, and trade-related activities. Notably, while the manufacturing sector remains the central focus, the respondent sample also includes firms engaged in digital services and knowledge-intensive fields.
- Manufacturing Activities: Firms involved in manufacturing reported a mix of traditional and higher-value-added activities, including electronics, food processing, garments, and consumer goods.
- Ownership Structure: The majority of firms are domestically owned. Publicly listed companies are rare across the region, while a significant share of foreign-invested firms are regionally embedded, with headquarters or affiliates located within ASEAN or the broader Asia-Pacific.
- Foreign Linkages: Among firms with foreign ownership, nearly 80% report headquarters based in ASEAN or Asia-Pacific, and foreign subsidiaries are typically located within the region, reflecting dense regional production and trade networks.
- Cross-Country Comparability: The survey instrument was designed for consistency across countries, enabling meaningful comparative analysis of firm behaviour, challenges, and policy engagement.

Automation and Digitalisation

Automation and digital technologies have become integral to modern business operations, offering tools to boost efficiency, scale production and improve service delivery. In Southeast Asia, firms are adopting these technologies at varying speeds, reflecting differences in industrial structure, technological capacity and firm size.

In Singapore, the integration of automation is widespread but remains largely low-level. As shown in Figure 2.1, a majority of respondent firms (69.7%) have automated just up to 25% of their business processes. While no firms in the Singapore sample report full automation, most firms have adopted at least some form of automation,[15] an indication of the country's universal exposure to digitalisation, even among smaller firms.[16] At the same time, 55% of Singapore-based firms report the digitalisation of service delivery (e.g., mobile apps, digital ordering platforms), demonstrating a clear preference for customer-facing technological upgrades.

Robotic automation and AI are being adopted more selectively. According to Figure 2.2, about 21% of firms in Singapore use industrial robots, higher than most regional peers, while 19% have adopted artificial intelligence or machine learning tools. These trends suggest an openness to advanced technologies, though full transformation remains gradual.

Looking ahead, Singapore-based firms express strong intentions to deepen automation over the next three years. According to Figure 2.3, 63.5% of respondent firms plan to automate between 11% and 50% of their business processes, signalling a shift from digital readiness to operational implementation. Only 5.4% of firms anticipate no further automation, while none report plans for full automation. This steady, incremental approach reflects the measured pace of technological adoption among Singapore-based firms, shaped by sectoral demands and workforce considerations.[17]

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[15] The Singapore Digital Economy Report 2024 similarly notes that while digital adoption rates among SMEs have reached over 90% in recent years, the adoption intensity is still modest. From *Singapore Digital Economy Report 2024*, Infocomm Media Development Authority (IMDA), 2024, p.9, accessed from https://www.imda.gov.sg/-/media/imda/files/infocomm-media-landscape/research-and-statistics/sgde-report/singapore-digital-economy-report-2024.pdf.

[16] This corresponds to a press release from IMDA noting that the share of SMEs adopting at least one digital solution that supported general business function increased to 82% in 2023 from 69% in 2021. From *Singapore's Digital Economy Remains Robust*, IMDA Singapore, accessed from https://www.imda.gov.sg/resources/press-releases-factsheets-and-speeches/press-releases/2024/singapore-digital-economy-remains-robust.

[17] SDER 2024 also notes that the digital solutions adopted by 85% of SMEs were solutions that supported sector-specific needs. Accessed from https://www.imda.gov.sg/-/media/imda/files/infocomm-media-landscape/research-and-statistics/sgde-report/singapore-digital-economy-report-2024.pdf (p.4).

Figure 2.1 Automation of Business Processes

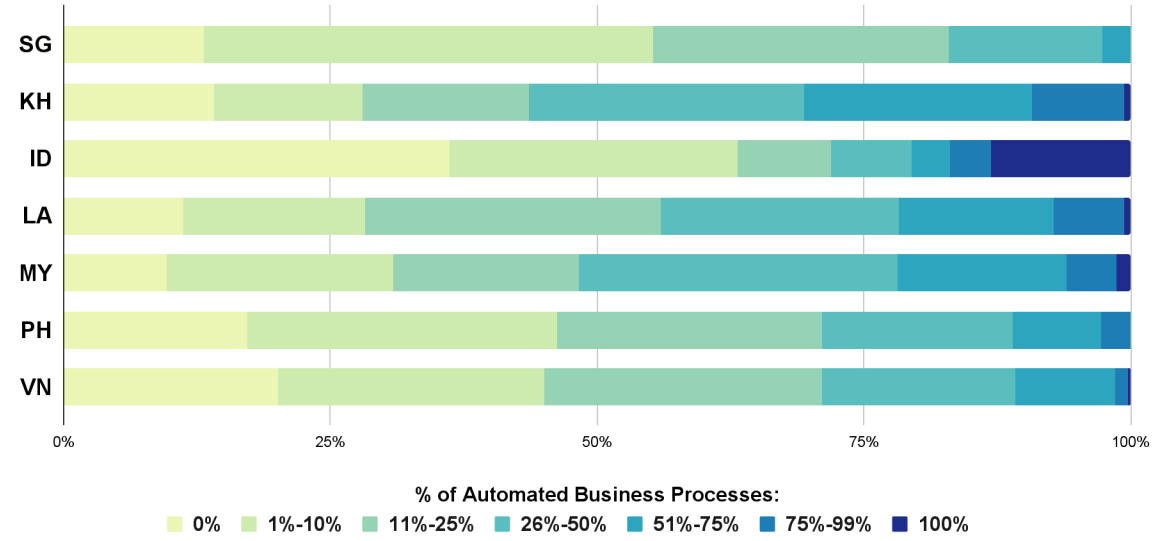
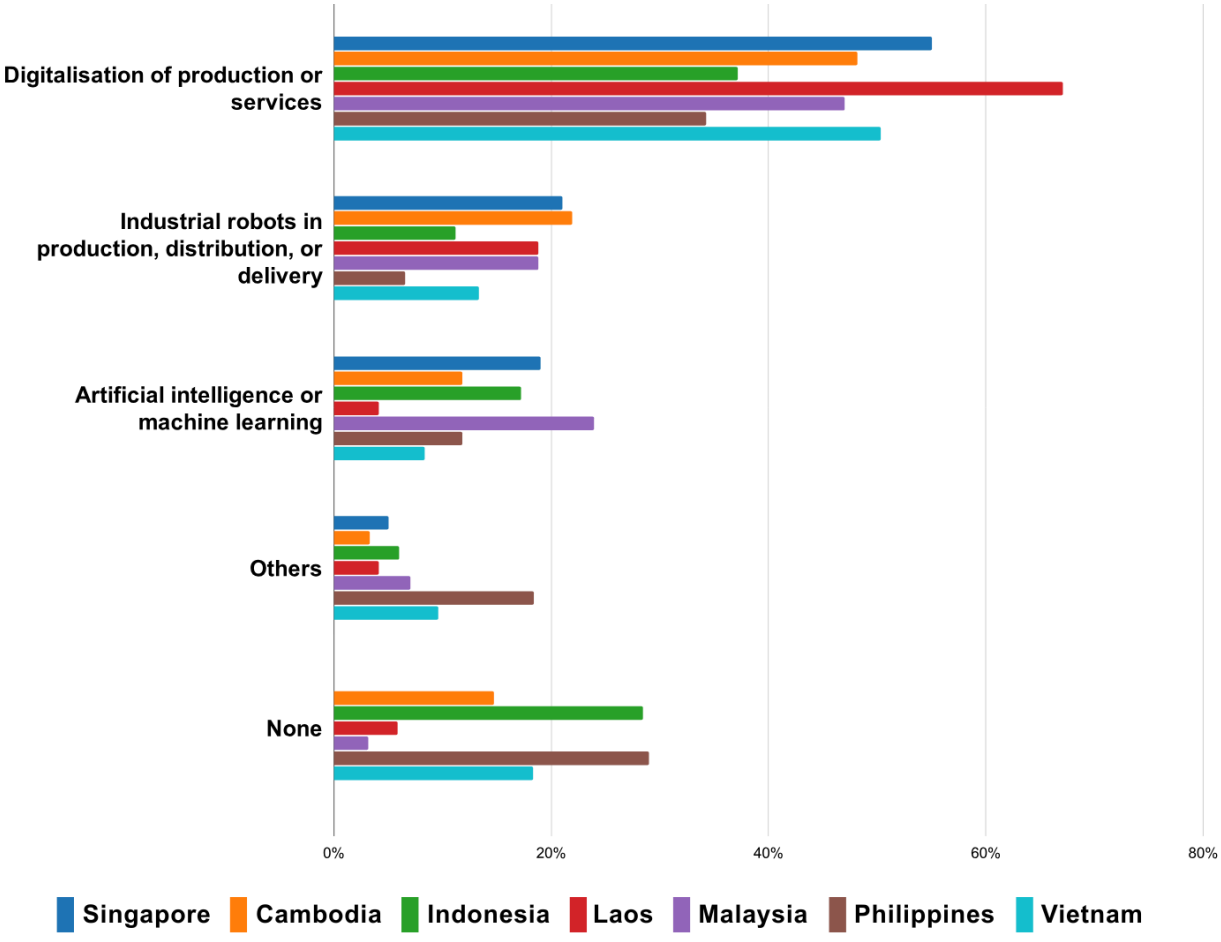


Figure 2.2 Types of Automated Processes



Firms across the region display a wide range of automation experiences and plans:

- Low-to-moderate automation dominates
    - Across all seven countries, most firms report automating less than half of their business processes.
    - In Singapore, 69.7% of firms report low-level automation (1–25%), and 13.2% report no automation (Figure 2.1).
    - Indonesia is an outlier, with both the highest share of fully automated firms (13.1%) and the highest share of firms with no automation (36.2%).
- Future automation plans are strong in the middle ranges
    - In Singapore, 63.5% of firms plan to automate between 11% and 50% of processes (Figure 2.1), indicating a focused drive towards operational efficiency.
    - Cambodia and Malaysia show the highest anticipated mid-to-high levels of planned automation, with 38.8% and 31.7% of respective firms planning to automate 51–99% of their tasks.
    - Indonesia again stands out, with 22.2% of firms expecting to reach full automation.
- Digitalisation of services is widespread
    - Singapore (55%) and Laos (67.1%) top the list of firms using digital platforms for customer service (Figure 2.2).
    - Other countries also show strong uptake, including Malaysia (47%) and Vietnam (50.3%).
- Adoption of advanced automation tools remains limited
    - Use of industrial robots is highest in Singapore (21%) and Cambodia (21.9%).
    - AI and machine learning adoption is led by Malaysia (24%), followed by Singapore (19%).
- Substantial proportion of firms report no automation changes
    - Philippines (29%) and Indonesia (28.4%) have the highest shares of firms not implementing any automation technologies (Figure 2.2).

An “Other” category was included in the survey to allow firms to identify automated processes not captured by the predefined response options. Respondent firms indicated other types of automation use, such as:

- Production & machinery automation[18]
- Enterprise systems & process automation[19]
- General software & IT[20]

[18] This includes computer numerical control machines (for drilling and laser cutting), packaging, processing & filling machines, upgraded traditional machines (e.g., automated sewing machines, automated saws), etc.
[19] This includes enterprise resource planning systems, human resource information systems, accounting software, invoicing systems, etc.
[20] This includes cloud-based platforms, design software, social media and other electronic platforms, etc.

- A number of machines or software with machine learning integration specific to firms' business processes.[21]

These survey findings are consistent with broader trends reported in recent publications. The SME Policy Index: ASEAN 2024 confirms that digitalisation among small and medium-sized enterprises in the region—including Singapore—is widespread, especially in customer-facing functions, but deeper automation remains limited due to capacity constraints and sectoral relevance.[22] Similarly, the Singapore Business Federation (SBF) National Business Survey 2024: Smart-Enabled Businesses Edition finds that while the majority of Singapore-based firms recognise digital transformation as essential, most focus on digitising operations. About two in three businesses (66%) have adopted or plan to adopt AI in the next 12 months, with process automation for operations as the most preferred area.[23] The Infocomm Media Development Authority's (IMDA) Singapore Digital Economy Report 2024 also shows notable progress in AI and digital tool adoption among SMEs, yet emphasises that widespread deployment of industrial automation technologies remains a work in progress.[24]

Forward-Looking Perspectives on Automation: Expectations for Productivity and Employment

Survey findings suggest that firms across Southeast Asia are planning further automation over the next three years, with varying degrees of ambition and anticipated impact. In Singapore, this forward momentum is characterised by measured but widespread investment in digital technologies, reflecting a focus on operational efficiency over transformational change.

Plans for Automation

Singapore-based firms are largely planning for incremental increases in automation rather than large-scale technological overhauls. As shown in Figure 2.3, a combined 63.5% of respondent firms in Singapore expect to automate between 11% and 50% of their business processes in the next

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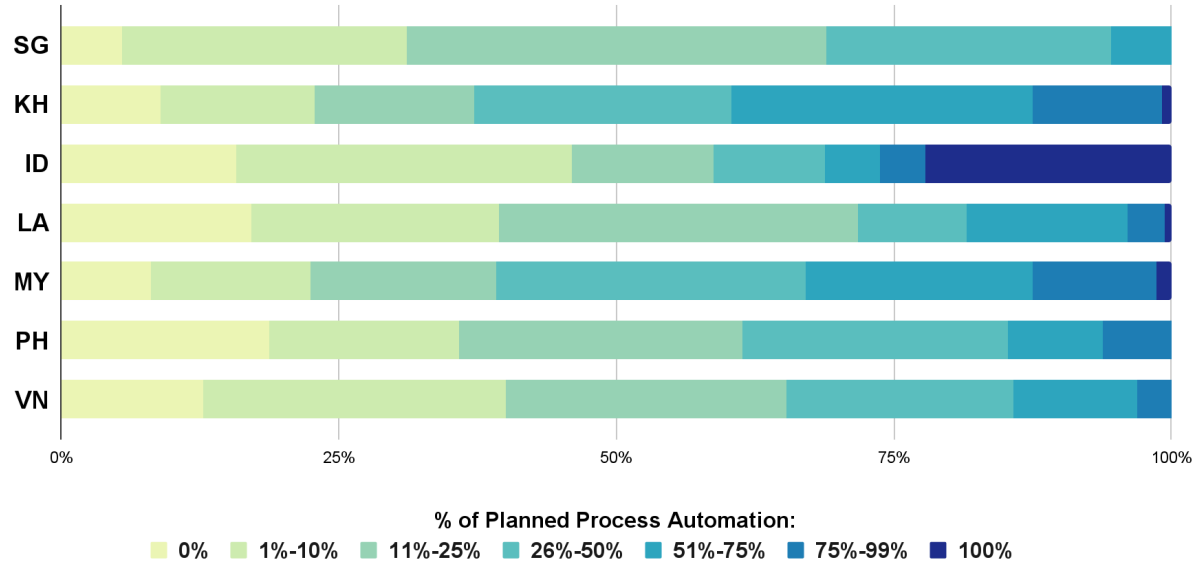
[21] This includes sorting systems and chemical analysis machines with data streamlining software.
[22] *SME Policy Index: ASEAN 2024–Boosting Competitiveness and Inclusive Growth* from the Organisation for Economic Co-operation and Development (OECD), ASEAN, ERIA, 2024, accessed from https://asean.org/wp-content/uploads/2024/09/Full-Report_ASEAN-SME-Policy-Index-2024_20-Sept-2024.pdf.
[23] *National Business Survey 2024: Smart-Enabled Businesses Edition*, Singapore Business Federation, accessed from https://www.sbf.org.sg/docs/default-source/about-us/nbs-2024-smart-enabled-businesses-edition---final-full-report-(final)04f6c912-6ac5-40a9-9655-20eaf85ba248.pdf?sfvrsn=b21fe92f_1.
[24] *Singapore Digital Economy Report 2024*, Infocomm Media Development Authority, Ministry of Communications and Information, Government of Singapore, accessed from https://www.imda.gov.sg/-/media/imda/files/infocomm-media-landscape/research-and-statistics/sgde-report/singapore-digital-economy-report-2024.pdf.

three years. Only 5.4% plan no further automation at all, and none anticipate full automation. This indicates a measured and pragmatic approach to integrating new technologies, possibly reflecting concerns over potential job losses and displacement as well as the need to move forward in tandem with retraining or upskilling to complement new automation processes.

In regional comparison:

- Indonesia stands out with the highest share of firms planning full automation (22.2%), a bold contrast to all other countries surveyed.
- Cambodia and Malaysia report the largest concentration of firms aiming for mid-to-high levels of automation (51%–99%), at 38.8% and 31.7%, respectively.
- Firms in Laos and Vietnam mostly plan modest automation increases (up to 25%), while Philippine firms are distributed more evenly across levels of planned automation.

Figure 2.3 Plans for Automation in the Next Three Years



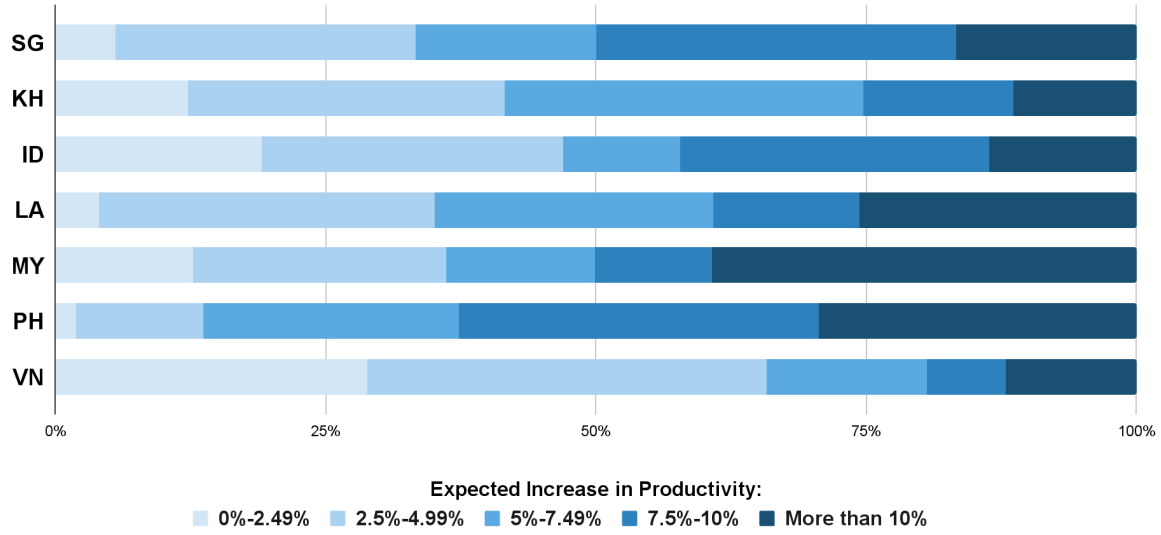
Expected Productivity Gains

Despite modest automation plans, Singapore-based firms are optimistic about future productivity benefits. As shown in Figure 2.4, one-third (33.3%) of respondents in Singapore expect a 7.5%–10% improvement in productivity from automation—the highest among all countries surveyed in that specific band. Another 27.8% estimate productivity gains in the 2.5%–4.99% range, and 16.7% foresee gains exceeding 10%.

- In contrast, Malaysia leads the region in expectations of significant productivity boosts, with nearly 40% of firms anticipating improvements of more than 10%.
- Philippine firms also report strong optimism, with 29.4% projecting productivity increases above 10%, alongside 33.3% expecting 7.5%–10% gains.
- At the other end, firms in Vietnam and Indonesia are more conservative in their estimates, with 28.9% and 19.1% of respective firms anticipating productivity gains of less than 2.5%.

These differences reflect country-specific industrial compositions and the maturity of technology adoption within firms.

Figure 2.4 Expected Gains in Productivity from Automation

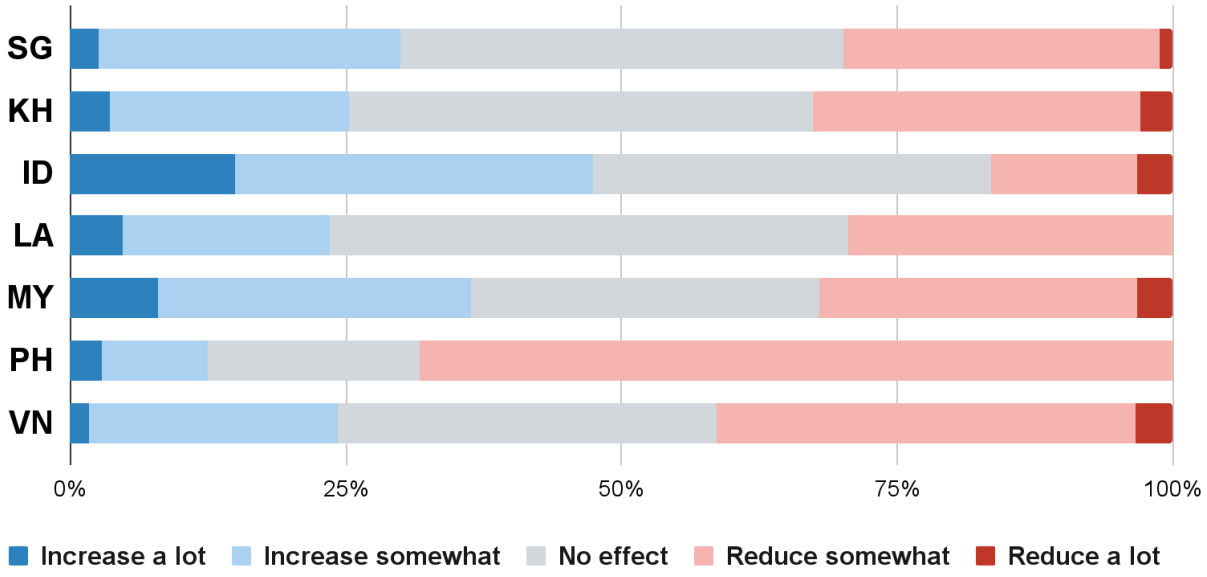


Anticipated Impact on Employment

Singapore-based firms largely expect automation to have a limited effect on employment levels. According to Figure 2.5, 40.3% of respondents foresee no change in headcount, while 27.3% expect some increase in employment, and only a combined 29.9% foresee a reduction in firm employment. This relatively balanced outlook suggests that automation in Singapore is viewed as a tool for augmenting—not replacing—human capital. It also underscores a confidence in the adaptability of the workforce.

- The Philippines stands out as an outlier, with 68.3% of firms expecting to reduce employment, indicating stronger concerns over labour displacement.
- By contrast, Indonesia and Malaysia report higher shares of firms anticipating employment growth, with 47.4% and 36.3% of respective firms expecting to hire more staff.
- Vietnam, like Singapore, reports a balanced view, with 34.4% expecting no change and 24.2% expecting some increase in employment.

Figure 2.5 Expected Impact of Automation on Firm Employment



Singapore-based firms, like many of their regional peers, are pursuing automation in a measured and targeted manner, balancing operational needs with technological opportunities. While large-scale automation remains rare, the combination of modest automation plans and optimistic productivity expectations indicates that firms see clear value in continued digital transformation. Importantly, most Singapore-based firms do not anticipate major employment disruptions, reflecting confidence in their workforce's ability to adapt and in the role of technology as a complement rather than a substitute. Across Southeast Asia, this measured optimism suggests a gradual but steady trajectory towards more automated, productive, and resilient business operations.

Online Business Engagement Across Southeast Asia

Digital engagement is becoming an increasingly vital part of business strategy in Southeast Asia, enabling firms to expand their market reach, streamline operations, and enhance customer service.[25] However, the extent and type of online business activities vary significantly across countries. In Singapore, survey data reveal a broad—but not dominant—use of online platforms for specific business functions, particularly in advertising, procurement and logistics support. Singapore-based firms lead in several categories of digital business engagement:

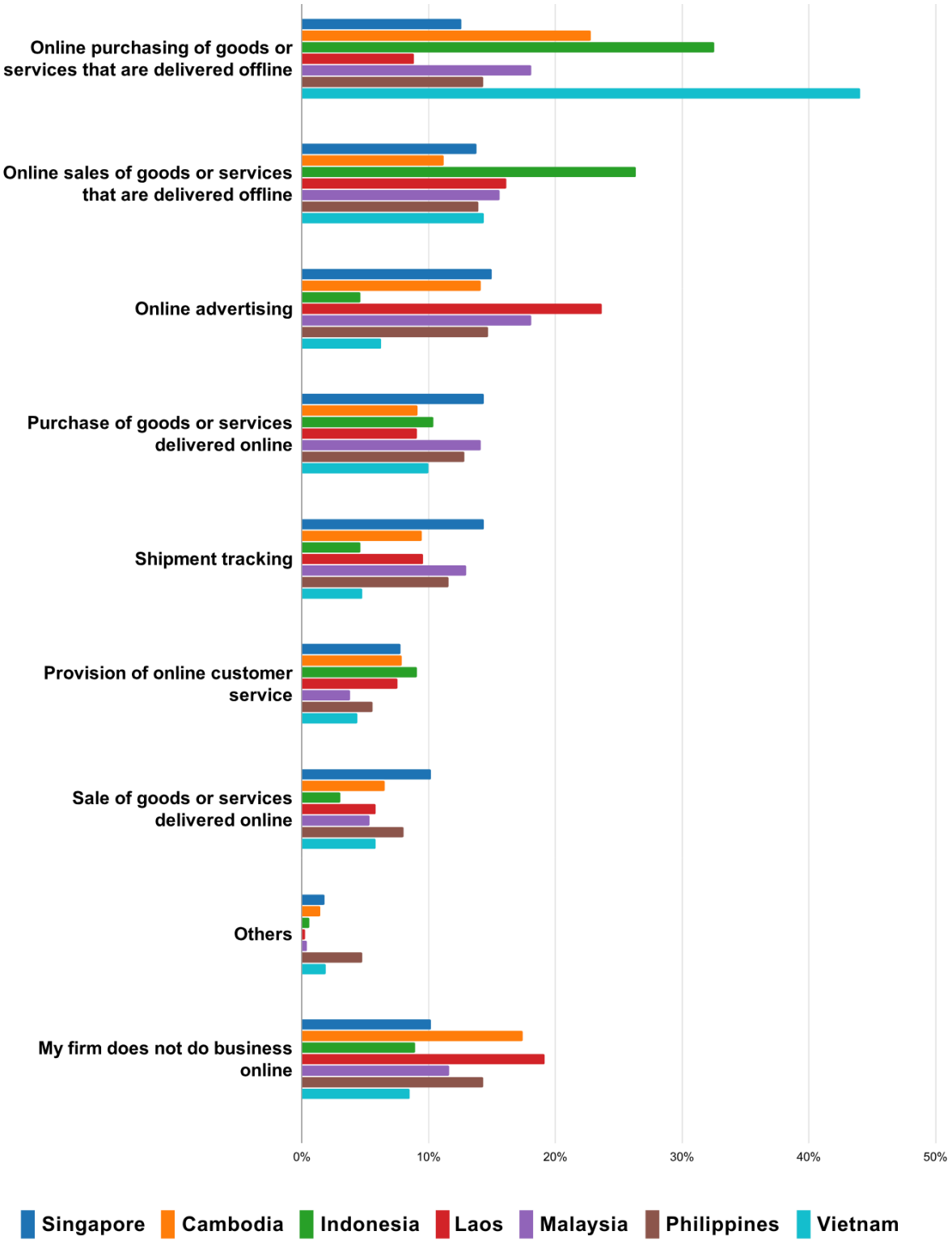
- Online advertising is the most widely adopted online activity, with 14.97% of Singapore-based firms reporting its use—slightly higher than in most other countries and close to the regional high of 18.09% in Malaysia.
- Shipment tracking is the next most prominent function that is used by 14.37% of Singapore-based firms, which reflects Singapore's position as a transhipment hub and development as a regional logistics hub. This is ahead of Malaysia (12.95%) and significantly ahead of countries such as Indonesia (4.60%) and Vietnam (4.78%).
- Online purchasing of physical goods is reported by 12.57% of Singapore-based firms—lower than in Vietnam (44.07%) and Indonesia (32.52%), but broadly consistent with regional averages.
- Digital goods and remote services are also part of the online landscape, with 14.37% of Singapore-based firms purchasing such services and 10.18% selling them, which is among the higher figures in the region.

In contrast, Singapore-based firms are less engaged in direct online sales of offline goods and services (13.77%) and in providing online customer service (7.78%), both of which are in line with or slightly above regional averages but not leading. Interestingly, only 10.18% of Singapore-based firms report not conducting any business online, which is one of the lowest proportions in the region, indicating a strong overall digital orientation. This contrasts with higher offline rates in Laos (19.14%) and Cambodia (17.43%).

- Vietnam shows the highest digital purchasing activity, with 44.07% of firms buying goods or services online for offline delivery.
- Laos leads in online advertising (23.68%) and reports moderate levels of other digital engagement.

[25] The high potential for digital engagement in business strategy in Southeast Asia is also reflected in a paper by Deborah Elms and Nick Agnew in 2022: digital trade growth expanded to 400 million users in 2020 across six Southeast Asian countries, and the e-commerce market in the region is projected to grow at an average rate of 25% to 35% per year. From *Digital Trade in Asia*, European University Institute, Robert Schuman Centre for Advanced Studies, Global Governance Programme, Deborah Elms and Nick Agnew, 2022, p.1, 21, accessed from https://cadmus.eui.eu/server/api/core/bitstreams/f6e60d9b-b64a-5404-a826-5ad06a2244bf/content.

Figure 2.6 Digital Business Activities in Southeast Asia



- Indonesia demonstrates balanced use of online platforms for both purchasing and selling offline goods, but relatively low usage of advanced services such as shipment tracking or digital sales.
- Malaysia consistently ranks above the regional average in most digital business activities, particularly online advertising and shipment tracking.

An "Others" option was included in the survey to allow firms to identify digital business activities not captured by the predefined response options. For this option, respondent firms indicated online transactions,[26] customer engagement,[27] and digital collaboration.[28]

These findings position Singapore as a digitally engaged economy with targeted adoption of online business tools, particularly in advertising, logistics and procurement, while still presenting growth potential in areas like customer service and digital sales.

Extent of Online Sales Activity

Building on the preceding analysis of firms' digital engagement, Figure 2.7 presents the distribution of firms by the share of total sales conducted online. These data offer important insights into the depth of digital integration across businesses, highlighting not just the adoption of online channels but also the extent to which digital commerce contributes to firms' overall revenue. These have implications for digital infrastructure planning, SME support policies and regional strategies for accelerating digital trade.

Singapore stands out among the seven countries surveyed. While 80.4% of Singapore respondent firms report that 25–49% of their sales occur online, an additional 13.7% conduct 100% of their sales online, which is the highest proportion in this top category across the region. This distribution points to a strong base of mid-level online integration, with a notable segment of fully digital firms. Interestingly, no firms in the Singapore sample report that online sales account for just 1–24% of their total sales, indicating that those engaging in online commerce are doing so meaningfully rather than marginally. This suggests that existing measures that provide assistance to firms to utilise digital solutions such as the Productivity Solutions Grant may be having an impact on the adoption of e-commerce in Singapore.[29]

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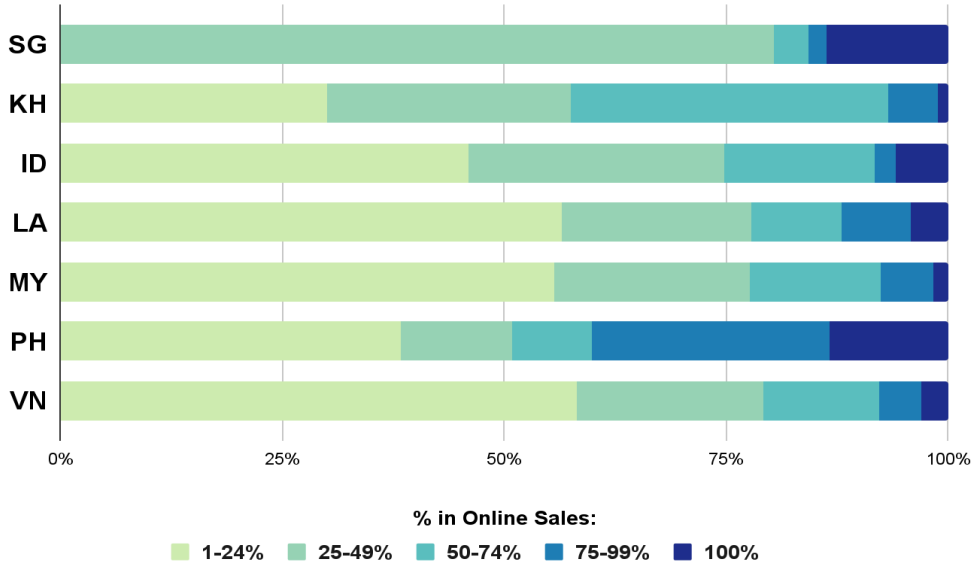
[26] This includes e-wallet transactions and online payment collections.
[27] This includes online tutorials, social media updates, etc.
[28] This includes documentation and procurement, etc
[29] The Productivity Solutions Grant offers up to 50% support on eligible costs to SMEs. Eligible costs include sector-specific costs, as well as general costs such as e-commerce solution costs. From *Productivity Solutions Grant*, Enterprise Singapore, accessed from https://www.enterprisesg.gov.sg/financial-support/productivity-solutions-grant; and *All PSG Solutions*, GoBusiness Singapore, accessed from https://www.gobusiness.gov.sg/productivity-solutions-grant/all-psg-solutions/.

Figure 2.7 Percentage of Firm Sales Conducted Online



Across the rest of Southeast Asia, the patterns are more varied:

- Indonesia, Malaysia, Laos and Vietnam show a high concentration of firms in the 1–24% online sales range, suggesting relatively limited integration of e-commerce into overall business strategy. In Vietnam, 58.1% of firms fall into this lowest category, followed by Malaysia (55.7%) and Laos (56.4%).
- Cambodia displays a broader spread, with 30.0% of firms in the 1–24% category and a significant 35.7% in the 50–74% category, suggesting a more heterogeneous profile of online sales activity.
- The Philippines exhibits a bimodal distribution; while 38.4% of firms report low online sales (1–24%), a notable 13.4% report conducting all of their sales online, mirroring the high share seen in Singapore. This may reflect the country's fast-growing digital services sector and social commerce adoption.

These figures underscore a key distinction between the breadth and depth of digital engagement. While many firms across ASEAN are adopting digital tools and engaging in some form of online business activity (as seen in Figure 2.6), the extent of reliance on digital channels for core revenue generation remains highly uneven.

Singapore's digital profile suggests not only early adoption but also more advanced integration of digital sales channels into firm strategy. This likely reflects a combination of factors, including strong digital infrastructure, widespread consumer adoption of e-commerce, government incentives and a digitally literate workforce.

Policy Awareness and Exposure in Digital Business Environments

As digital business models expand across Southeast Asia, firms are increasingly encountering national and cross-border regulations that govern the digital economy. These include policies on data privacy, cybersecurity, intellectual property (IP) and taxation of digital services. Figure 2.8 summarises the percentage of respondent firms in each country that report having encountered these policy frameworks in the course of doing business online.

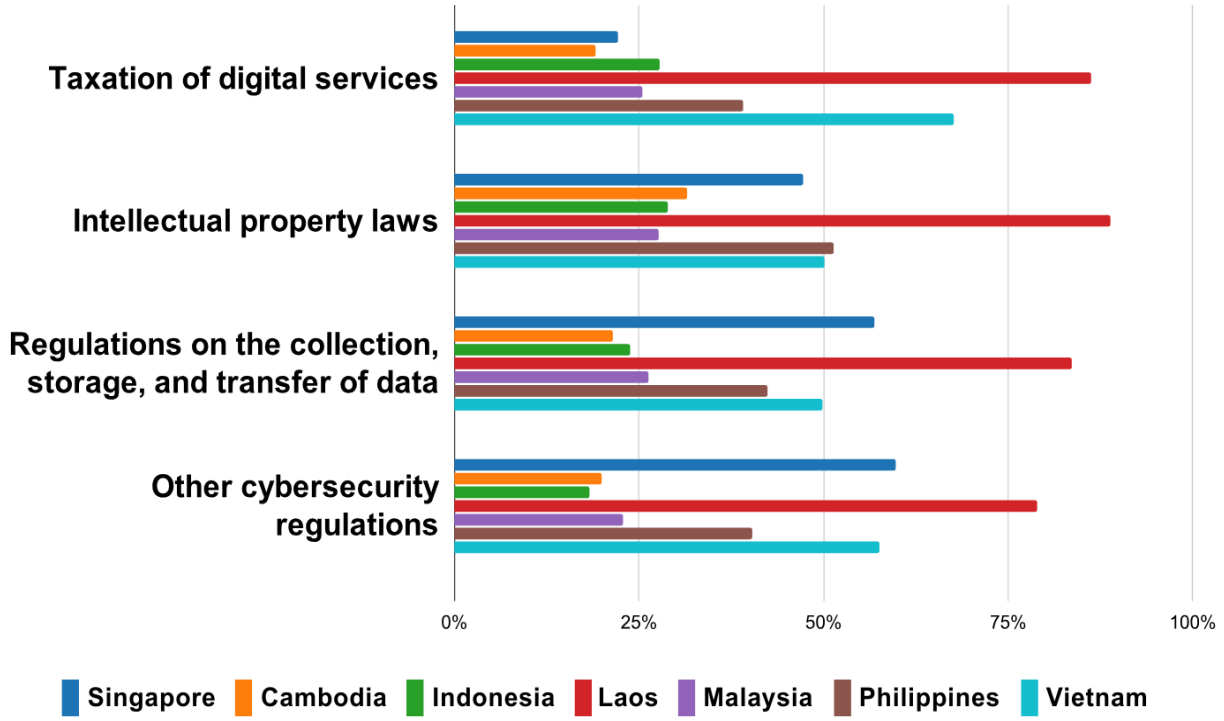
In Singapore, regulatory exposure is relatively high compared to most of its regional peers, underscoring the country's advanced digital infrastructure and institutional environment:

- 47.2% of firms in Singapore report encountering intellectual property laws, a figure that is slightly above the regional median and reflects the country's emphasis on protecting intangible assets in digital commerce.
- 56.9% of firms in Singapore have encountered data-related regulations, such as those governing data collection, localisation and cross-border transfer, second only to Laos. This likely reflects Singapore's active enforcement of the Personal Data Protection Act and alignment with international data governance standards.
- 59.7% of Singapore-based firms have experienced some form of cybersecurity regulation, among the highest in the region. This aligns with the government's strong push for cyber hygiene and risk resilience as part of its Digital Economy Framework for Action.
- Conversely, only 22.2% of firms in Singapore report encountering digital services taxation. This is considerably lower than in Vietnam (67.6%), the Philippines (39.0%) and Indonesia (27.8%), indicating that taxation of digital transactions remains less prevalent or visible to Singapore-based firms at this stage.

The data also indicate significant cross-country variation in policy exposure:

- Laos stands out with the highest reported exposure across all categories. Over 83% of firms report encountering data regulations, and nearly 89% report exposure to IP laws. This likely reflects recent efforts to formalise digital regulatory frameworks.
- Firms in Vietnam also report elevated exposure, particularly to IP and cybersecurity regulation, suggesting an increasingly complex digital policy landscape.
- In contrast, firms in Cambodia, Indonesia and Malaysia report comparatively lower interaction with digital policies. For instance, only 21.4% of Cambodian firms report encountering data governance regulations, and just 20.0% report exposure to cybersecurity frameworks. This may signal regulatory underdevelopment, weaker enforcement or limited digital engagement among surveyed firms.

Figure 2.8 Firms Encountering Online Business Regulations



A relatively significant proportion of firms—particularly in Laos, Singapore and Vietnam—indicated encountering other cybersecurity regulations. These include cybersecurity frameworks and obligations,[30] data localisation requirements,[31] and cybersecurity trust certifications.[32] The data patterns in Figure 2.8 underscore a widening gap in the regulatory environments experienced by firms across Southeast Asia. For policymakers, these findings highlight two key imperatives: first,

[30] Some governments may require designated sectors to follow specific cybersecurity frameworks or standards. For instance, in Singapore, organisations designated as "Critical Information Infrastructure" (CII) must meet minimum cybersecurity requirements. From *Cybersecurity Act 2018*, Attorney-General's Chambers of Singapore, accessed from https://sso.agc.gov.sg/Acts-Supp/9-2018/?ProvIds=P13-#P13-.
[31] Some governments may require organisations to store all data within national borders. For instance, the 2018 Cybersecurity Law in Vietnam and Decree 53 in 2022 requires all Vietnamese service providers and overseas entities doing business in Vietnam to have a presence and store all data locally. From PwC Vietnam, PwC Vietnam Legal NewsBrief, 2022, accessed from https://www.pwc.com/vn/en/publications/2022/220908-pwc-vietnam-legal-newsbrief-decree-53.pdf.
[32] To help organisations adhere to cybersecurity regulations and demonstrate robust cybersecurity practices, the Cyber Security Agency (CSA) in Singapore launched the Cyber Trust mark certification. While certification is optional, certified firms can obtain funding support for cybersecurity, enhanced cybersecurity toolkits and consultation and discounted rates on cybersecurity insurance. In return, firms have to maintain standards of cybersecurity hygiene. From *Cyber Trust*, Cyber Security Agency Singapore, 2022, accessed from https://www.csa.gov.sg/our-programmes/support-for-enterprises/sg-cyber-safe-programme/cybersecurity-certification-for-organisations/cyber-trust/.

the need to ensure firms are aware of and able to comply with digital regulations; and second, the importance of regional dialogue to reduce regulatory fragmentation and foster business confidence in the digital domain.

Firm Perceptions of Digital Policy Impacts

How firms perceive digital regulatory frameworks can offer valuable insight into the alignment between public policy and private sector needs. Figure 2.9 presents firm-level views on whether various online business policies—ranging from taxation of digital services to cybersecurity regulations—are beneficial, neutral or harmful to their operations. In this context, "harmful" refers to a perceived negative effect on business performance. These may include increased compliance costs, administrative burdens, operational complexity or unintended constraints on innovation or growth. The relatively low incidence of firms reporting harm across surveyed countries suggests that most are able to navigate digital policy environments without significant disruption.

Singapore-based firms generally view digital policy frameworks as neutral or beneficial, with very few indicating adverse effects. For example, only 6.7% of Singapore-based firms regard taxation of digital services as harmful, while a strong 80% report a neutral stance and 13.3% perceive a benefit. This pattern reflects the relatively stable regulatory environment in Singapore and a broad capacity among firms to manage compliance.

Across Southeast Asia, the perception of digital services taxation varies:

- Firms in Indonesia and Cambodia are more likely to view digital services taxes as beneficial (63.1% and 42.2%, respectively).
- Perceptions of harm are low across the board, but somewhat elevated in the Philippines (13.0%) and Cambodia (14.4%).
- Views on IP laws are markedly positive across the region. A majority of firms see IP regulation as beneficial to their business:
- In Singapore, 58.1% of firms identify IP rules as beneficial, while the remaining 41.9% are neutral.
- The most positive responses come from Malaysia (76.8%) and Cambodia (71.8%), where strong IP protection is likely viewed as encouraging innovation and brand development.

Perceptions of data governance regulations (including rules on data storage, transfer, algorithm design, and localisation) show more variability:

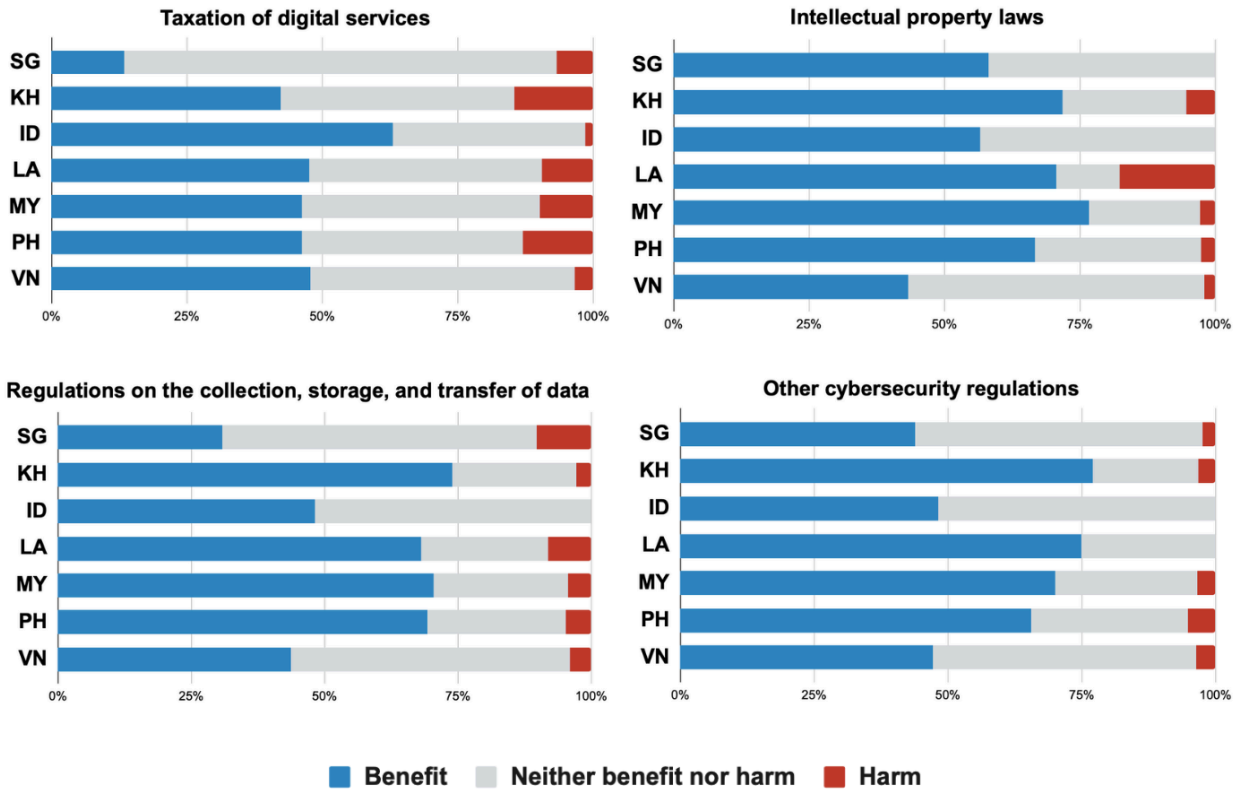
- 30.8% of Singapore-based firms see these regulations as beneficial, while 59% remain neutral and 10.3% report harm, a slightly higher proportion than for other policies.
- In contrast, firms in Malaysia (70.4%) and Cambodia (74.0%) are far more likely to view these data-related policies positively.

Cybersecurity regulations also receive strong endorsement:

- 43.9% of Singapore-based firms find them beneficial, with 53.7% neutral and just 2.4% reporting harm.
- Support is particularly strong in Cambodia (77.1% benefit) and Laos (75.0%).

These findings suggest that across ASEAN, most firms view digital business regulation as manageable, if not beneficial. While Singapore-based firms tend to adopt a more neutral stance overall, this reflects the country's well-established digital infrastructure and regulatory environment. In contrast, higher reported benefits in countries like Cambodia, Malaysia and Indonesia may reflect the more recent adoption of these frameworks, and their tangible effects in expanding trust and digital participation.

Figure 2.9 Firm Perceptions of Online Business Policies



Summary: Automation and Digitalisation

- Widespread but low-intensity automation: Over two-thirds of Singapore-based firms report adopting some form of automation, though the extent of implementation remains modest, focusing primarily on routine process enhancements.
- Selective uptake of advanced technologies: About 20% of Singapore-based firms have introduced industrial robots or AI/machine learning applications, indicating cautious but strategic engagement with emerging technologies.
- Productivity gains: More than a quarter of firms report productivity improvements as a result of automation, though gains are generally incremental. Firms in Malaysia, Vietnam, and Indonesia report greater productivity improvements and more ambitious automation plans than their Singapore counterparts.
- Moderate future automation plans: Most Singapore-based firms plan to gradually scale up automation over the next three years, anticipating continued productivity gains with neutral to slightly positive employment effects.
- Digital market engagement: Singapore-based firms show strong integration into digital markets, conducting a greater share of business activities online than peers in Vietnam or Indonesia.
- Online sales patterns: A relatively high proportion of firms in Singapore report substantial online sales, particularly in services sectors, highlighting the importance of digital infrastructure in domestic and cross-border commerce.
- Digital policy exposure: Firms in Singapore encounter more digital policies than firms in other countries. These policies are generally viewed positively, with concerns typically tied to uncertainty or compliance costs rather than resistance to regulation.
- Implications for SMEs: The gradual and controlled nature of Singapore's digital transformation underscores the importance of continued public support, especially for SMEs aiming to scale digital tools and navigate evolving regulatory environments.

Business Responsiveness to Sustainability Expectations: Scenario-Based Survey Design

Sustainability has emerged as a core priority for governments, businesses and consumers alike. Rising awareness of climate change, resource scarcity and long-term environmental risks have significantly elevated expectations for firms to operate more responsibly. These expectations now stem not only from public regulators, but also from civil society actors and increasingly sustainability-conscious customers.

To assess how firms respond to different sustainability expectations, a randomised scenario-based survey was conducted in the seven-country survey. Firms were presented with one of four hypothetical scenarios: (1) a baseline **Government Announcement** scenario where the government announces its commitment to sustainable growth, (2) a **Government Regulation** scenario with strict new environmental laws and penalties, (3) an **NGO Green List** scenario involving public green rankings by NGOs, and (4) a **Customer Demand** scenario involving pressure from major clients to reduce environmental harm.

Perceived Environmental Impact of Scenarios

Firms were first asked whether the policy scenario they were shown would have a positive impact on environmental quality.

Singapore findings:

- Under the Government Announcement scenario, 88.2% of Singapore-based firms agreed or strongly agreed that the announcement would benefit the environment.
- In the Government Regulation scenario, this figure remained relatively stable at 82.4%, though there was a slight increase in disagreement (17.6%).
- The NGO Green List scenario saw agreement dip to 73.7%, and disagreement rise to 26.3%, the highest among all countries in this treatment.
- The Customer Demand scenario yielded 75.0% agreement from Singapore-based firms, but again with 25.0% expressing concern or scepticism.

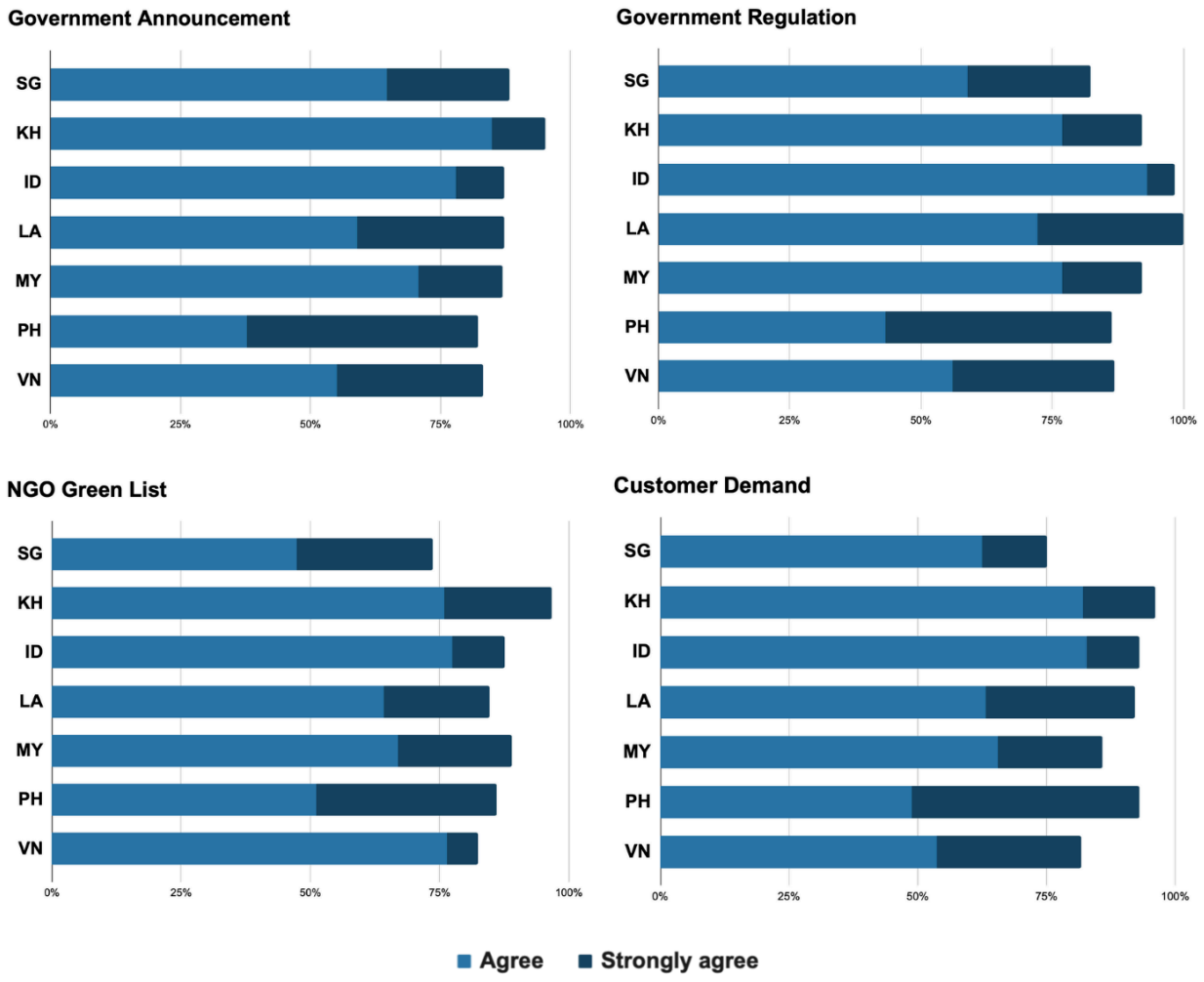
Across the region:

- Under the Government Announcement scenario, agreement rates were highest in Cambodia (95.2%) and Malaysia (86.9%), and lowest in the Philippines (82.2%) and Vietnam (83.2%).
- The Government Regulation scenario was most effective in Indonesia (98.3% agreement) and Malaysia (92.1%).

- Under the NGO Green List scenario, agreement reached 96.7% in Indonesia and 86.7% in Malaysia, but fell to 69.2% in Singapore and 70.6% in Vietnam.
- For the Customer Demand scenario, the strongest agreement came from the Philippines (93.0%) and Cambodia (96.1%), while Singapore's support (75.0%) was relatively moderate.

These findings suggest that government-led regulatory frameworks are perceived as the most credible and effective mechanisms for promoting sustainability—particularly in Singapore, where firms are attuned to formal policy signals such as a government announcement (control scenario) and regulatory clarity (regulations scenario). Conversely, NGO- and customer-driven approaches, while still viewed positively, elicited more varied reactions, potentially reflecting differences in trust, capacity or perceived enforcement.

Figure 3.1 Perceived Positive Impact on Environment Under Different Scenarios



Willingness to Invest in Improving Environmental Performance

Firms were also asked what percentage of annual operating costs they would be willing to invest to improve their environmental practices, given the scenario they received.
Singapore findings:

- Under the Government Announcement scenario, half of Singapore-based firms (50.0%) were willing to invest only 2.5% or less, and just 6.3% indicated willingness to invest over 10%.
- The Government Regulation scenario produced the most dramatic shift: 17.6% of Singapore-based firms were willing to invest over 15%, and 41.2% were prepared to invest more than 5%.
- Under the NGO Green List scenario, only 5.6% of Singapore-based firms were willing to invest more than 10%, indicating that reputational pressure alone was less compelling.
- The Customer Demand scenario produced the strongest response: 26.7% of Singapore-based firms indicated willingness to invest over 10%, and none said they would invest nothing.

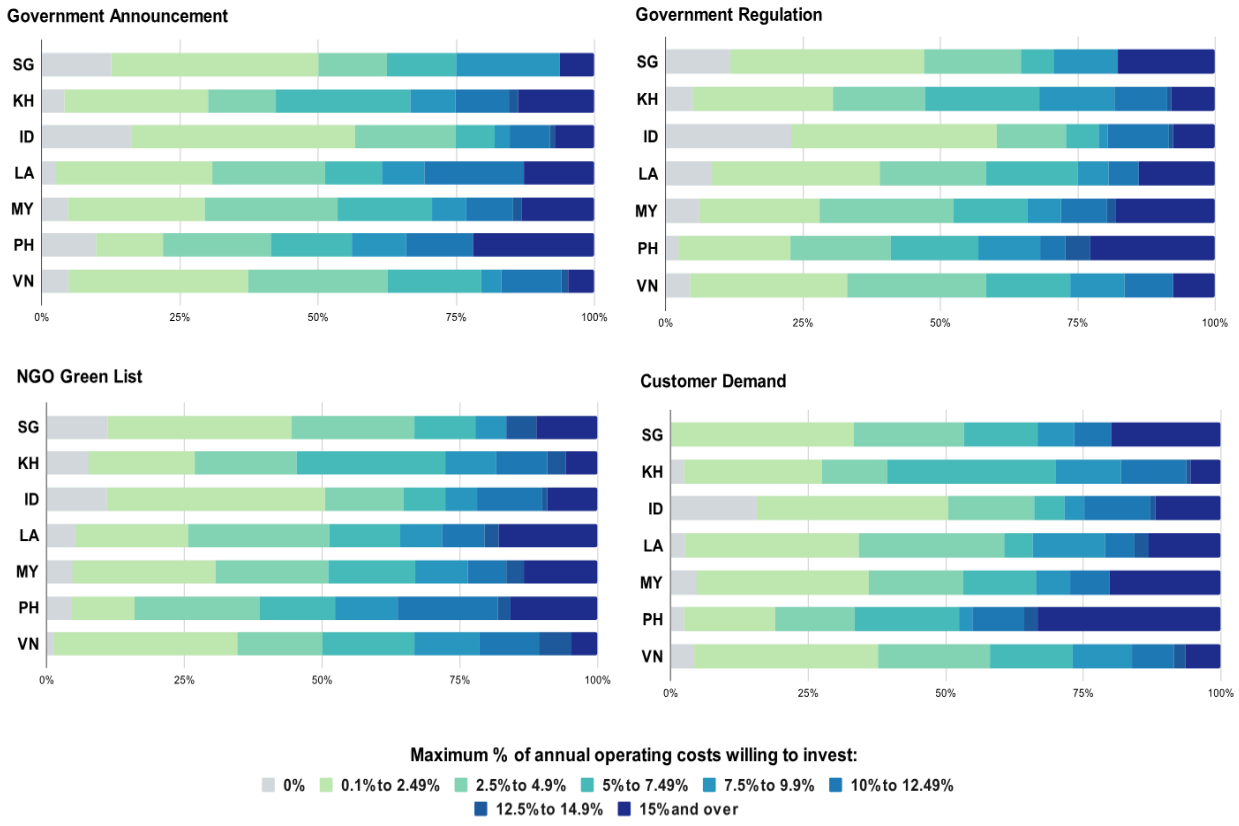
Across the region:

- Under the Government Regulation scenario, high-investment intentions were most common in Malaysia (27.5% willing to invest over 10%) and the Philippines (20.0%).
- In the NGO Green List scenario, willingness to invest over 10% reached 30.0% in Laos and 18.6% in Vietnam, while Singapore-based firms were less supportive at 5.6%.
- The Customer Demand scenario inspired strong investment responses in the Philippines (45.3% willing to invest over 10%) and Malaysia (33.6%).

Policy Implications

- Ensure regulatory clarity: Rules-based systems like Singapore benefit from well-defined, enforceable environmental standards. Clear expectations paired with strong enforcement mechanisms would be effective in driving firm compliance and investment.
- Leverage market-based incentives: Initiatives such as sustainable public procurement, green supply chain standards, and certification schemes can serve as powerful levers, especially when aligned with firms' commercial interests.
- Enhance civil society mechanisms through policy alignment: Reputational tools such as green rankings gain more traction when complemented by government recognition or integrated into broader public-private partnerships.
- Tailor support for SMEs: A differentiated policy approach, including technical assistance and financing support, will be essential to ensure small and medium-sized enterprises can meet rising sustainability expectations and participate in the green economy.

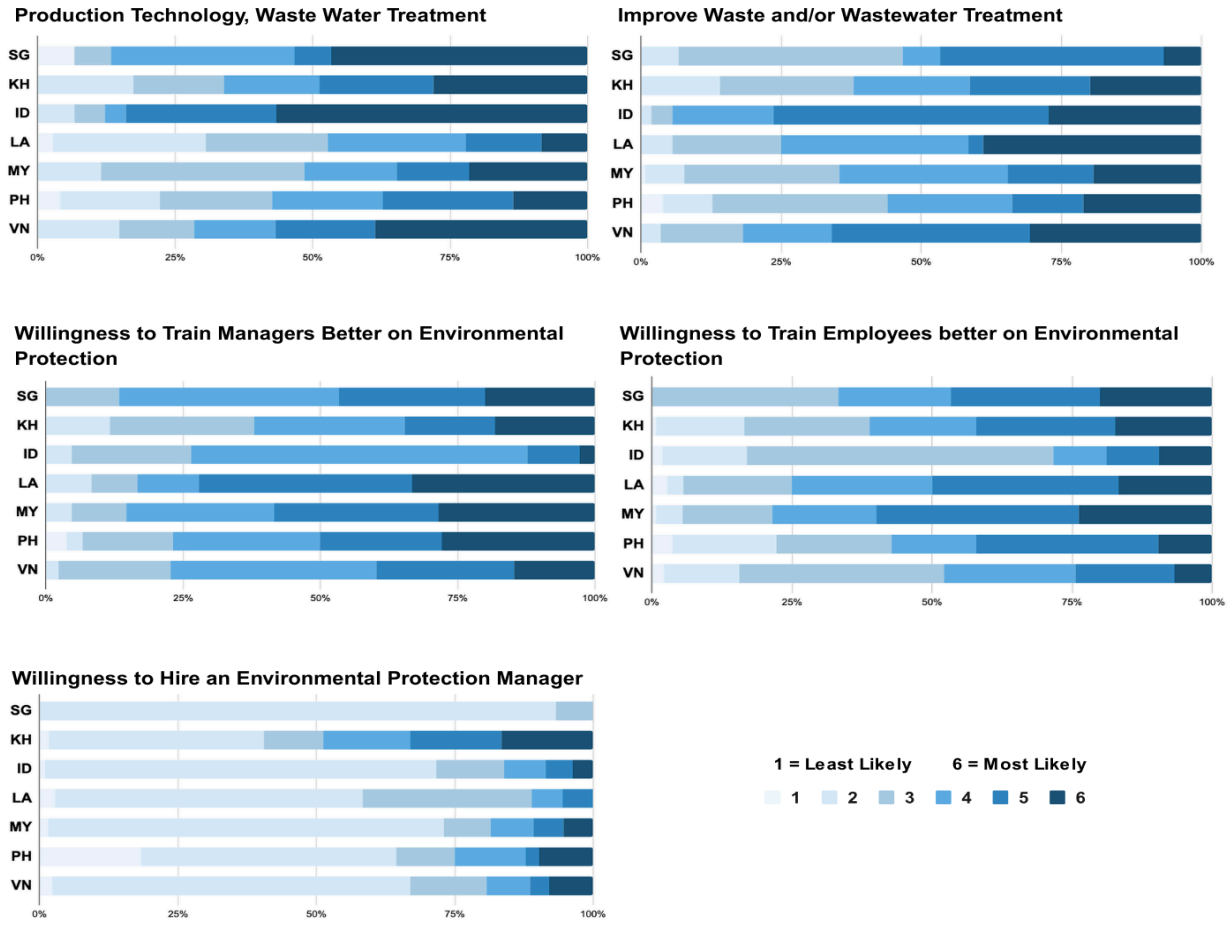
Figure 3.2 Willingness to Invest in Environmental Performance



Preferences on Environmental Improvement Measures

Firms across Southeast Asia differ significantly in their preferred environmental improvement measures depending on the type of sustainability pressure they face. Continuing to draw on results from the randomised scenario experiment, this section analyses how firms assess five specific environmental improvement measures: (1) purchasing cleaner production technology; (2) improving waste and/or wastewater treatment; (3) training managers on environmental protection; (4) training employees on environmental protection; and (5) hiring a dedicated environmental protection manager. In line with previous findings, Singapore-based firms appear particularly responsive to regulatory and customer-facing scenarios, though their preferences for specific environmental investments shift across these contexts. Figures 3.3a to 3.3d provide visualisations of the results.

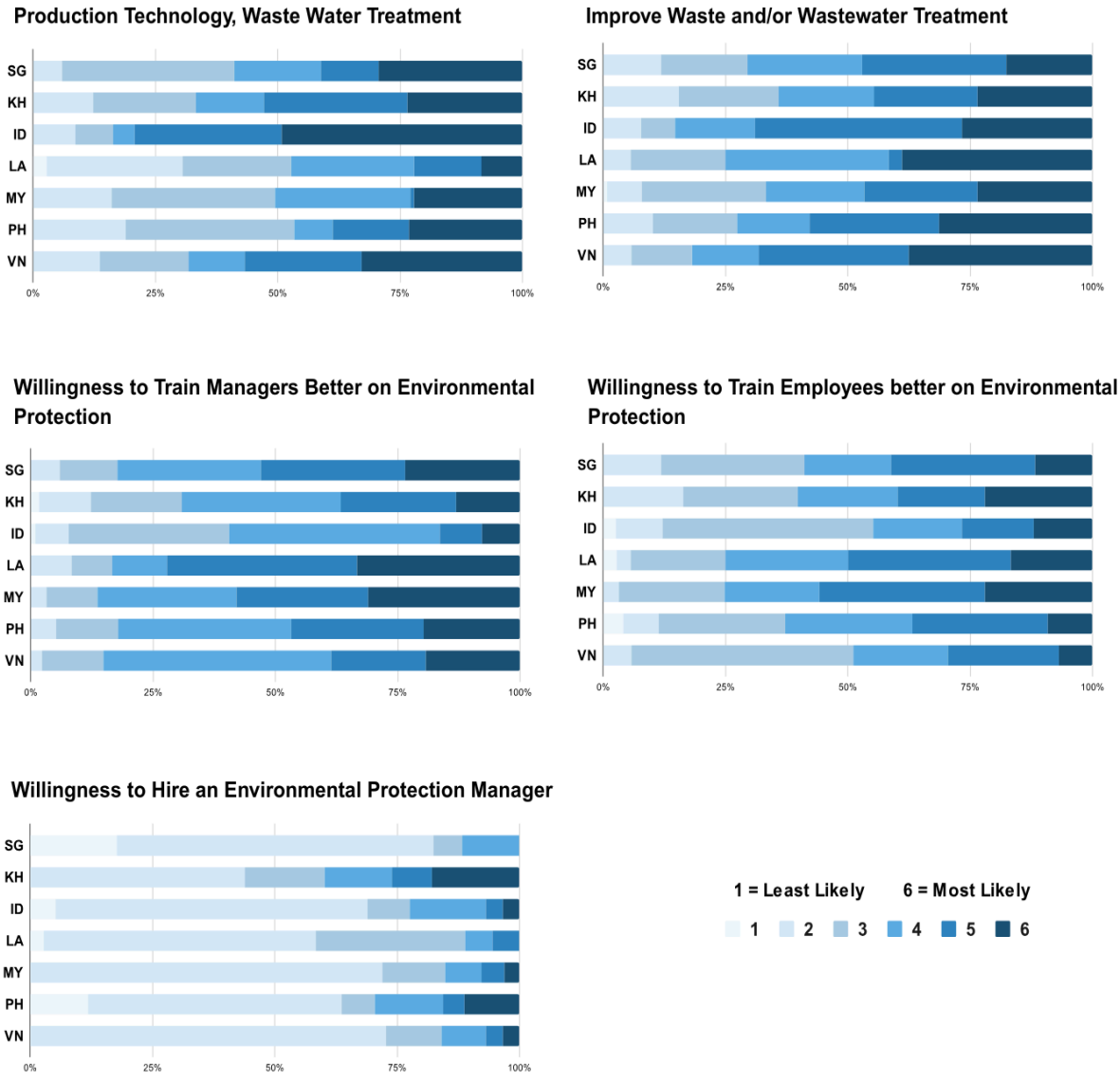
Figure 3.3a Measures Most Likely to be Adopted: Government Announcement Scenario



Government Announcement: under this scenario, where the government announces a commitment to sustainable growth, Singapore-based firms show a strong preference for technological investments:

- Cleaner production technology would be the most successful, with 47% of Singapore-based firms reporting they are most likely to adopt this measure.
- Training managers and training employees followed, with 20% of firms most likely to adopt this measure, signalling recognition of the importance of internal capacity-building.
- Wastewater treatment scored low as the most likely measure to be adopted (7%).
- Hiring an environmental protection manager was not a priority under this scenario, with all firms expressing a low likelihood of adopting this measure.

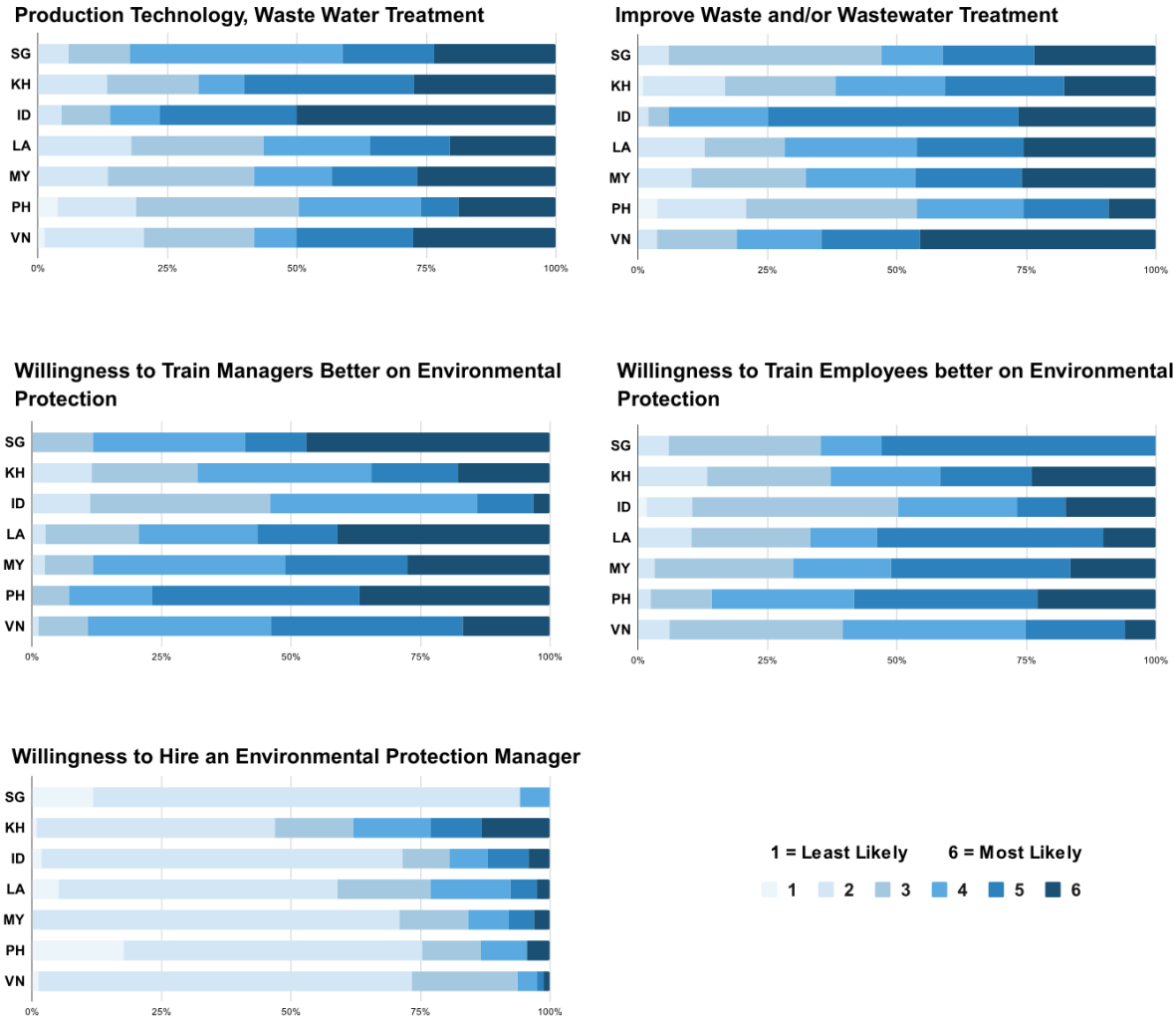
Figure 3.3b Measures Most Likely to be Adopted: Government Regulation Scenario



Regulation Scenario: findings suggest that regulatory signals prompt firms to broaden their sustainability strategies beyond just technological investments.

- Cleaner production technology remained important, with 29% most likely to adopt this measure, though significantly less than under the control scenario (47%).
- Wastewater treatment (18%) and training managers (24%) both saw modest increases in likelihood of being adopted.
- Notably, training employees gained traction, as more respondent firms were more likely to adopt this measure under regulatory pressure.
- Hiring an environmental manager remained a low priority, with most firms less likely to adopt this measure.

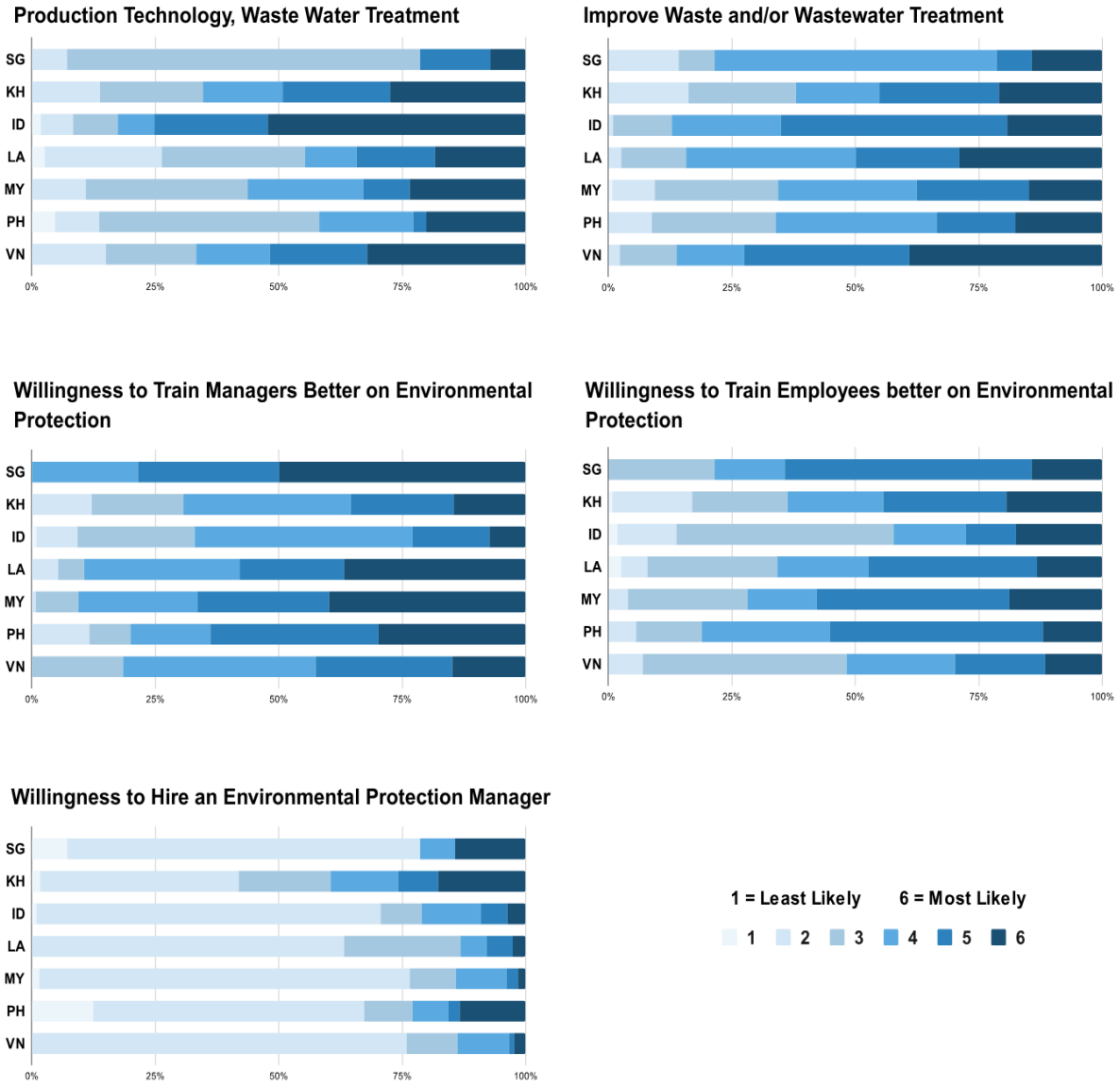
Figure 3.3c Measures Most Likely to be Adopted: NGO Green List Scenario



NGO Green List Scenario: When faced with reputational pressure through a public environmental ranking, Singapore-based firms shifted attention toward internal organisational practices:

- Training managers emerged as the measure most likely to be adopted by firms (nearly 47% of firms, more than double the likelihood observed under the Government Announcement scenario).
- Preference for employee training measures also increased, with 53% of respondent firms likely to adopt the measure, the highest likelihood across all scenarios.
- Cleaner technology was less likely to be adopted (24%). Hiring an environmental manager remained the measure least likely to be adopted.

Figure 3.3d Measures Most Likely to be Adopted: Customer Demand Scenario



Customer Demand Scenario. When faced with client-driven sustainability demands:

- Training managers again was the most likely measure to be adopted (50%), signalling the perceived importance of internal leadership. In fact, all respondent firms indicated that they would be likely to improve manager training, though in varying degrees of likelihood.
- Preference for cleaner production technology fell sharply, with only 7% of respondent firms most likely to adopt this measure. However, 71% of firms responded they are overall more likely to adopt this measure, indicating it remains important but not urgent.
- Support for employee training remained strong with the vast majority of respondent firms indicating a positive likelihood of adopting this measure.
- Preference for hiring an environmental manager saw a modest increase, with 14% of firms more likely to adopt this measure.

Other Possible Measures

Across all scenarios, some other measures proposed include internal efficiency changes,[33] eco-conscious packaging and material use, and waste reduction.[34] Respondents in the baseline scenario group had stronger focuses on conservation, corporate social responsibility efforts,[35] and investments in sustainability.[36] Those in the government regulations scenario group indicated incentive-based programmes[37] and greener business angles[38] as potential measures. Respondent firms in the NGO-driven scenario group emphasised stricter green packaging rules, and long-term green business alignment, while the respondent firms given the customer response scenario looked towards sustainable partnerships.[39] Overall, firms are engaging with environmental quality through both inward improvements and outward-facing, collaborative strategies.

Regional Comparisons

- Indonesia consistently favours cleaner production technology regardless of scenario, with top-rank support exceeding 50% in most conditions.
- Vietnam shows strong interest in wastewater treatment, especially under NGO pressure.
- Cambodia and Malaysia place relatively higher value on training and waste treatment, while the Philippines ranks training options highly under all scenarios.

Summary: Business Responsiveness to Sustainability Scenarios

Insights for Singapore:

- Regulatory and customer signals are the most effective levers for promoting sustainability investment among Singapore-based firms. Under the *Government Regulation* and *Consumer Demand* scenarios, firms were notably more willing to commit financial resources, with 20% willing to invest 15% or more of operating costs under customer pressure.
- Reputational mechanisms alone have limited traction. The *NGO Green List* scenario elicited a drop in perceived environmental benefit and investment willingness, underscoring the limited influence of civil society-led initiatives without regulatory or market backing.

[33] This is inclusive of operational efficiency (5S practices, automation) and energy efficiency (energy monitoring and clean energy).
[34] This includes recycling, composting or repurposing waste materials, as well as avoiding surplus in production.
[35] Respondents suggest campaigns such as coral and marine conservation.
[36] This includes investments in natural capital development and sustainability-focused companies.
[37] Such as plastic/packaging-for-vouchers campaign for customers, or eco-award competitions.
[38] Such as more environmentally sustainable products or products promoting environmental awareness.
[39] Such as working with corporate partners, government and grassroot suppliers for more environmentally sustainable practices, e.g., net zero codes, encouraging regenerative farming in the agriculture industry.

- Firms prioritise internal capacity-building over structural hires. Singapore-based firms consistently preferred training managers and employees in response to reputational and market-based pressures, rather than hiring environmental staff—a pattern that points to the need for shared sustainability services or pooled environmental expertise for SMEs.
- Technology investment is scenario-dependent. Cleaner production technology was the top choice in the control scenario, but it lost ground in reputational and customer-driven settings—suggesting that investment in hardware solutions is highly contingent on the type of pressure applied.

Comparative Regional Patterns:

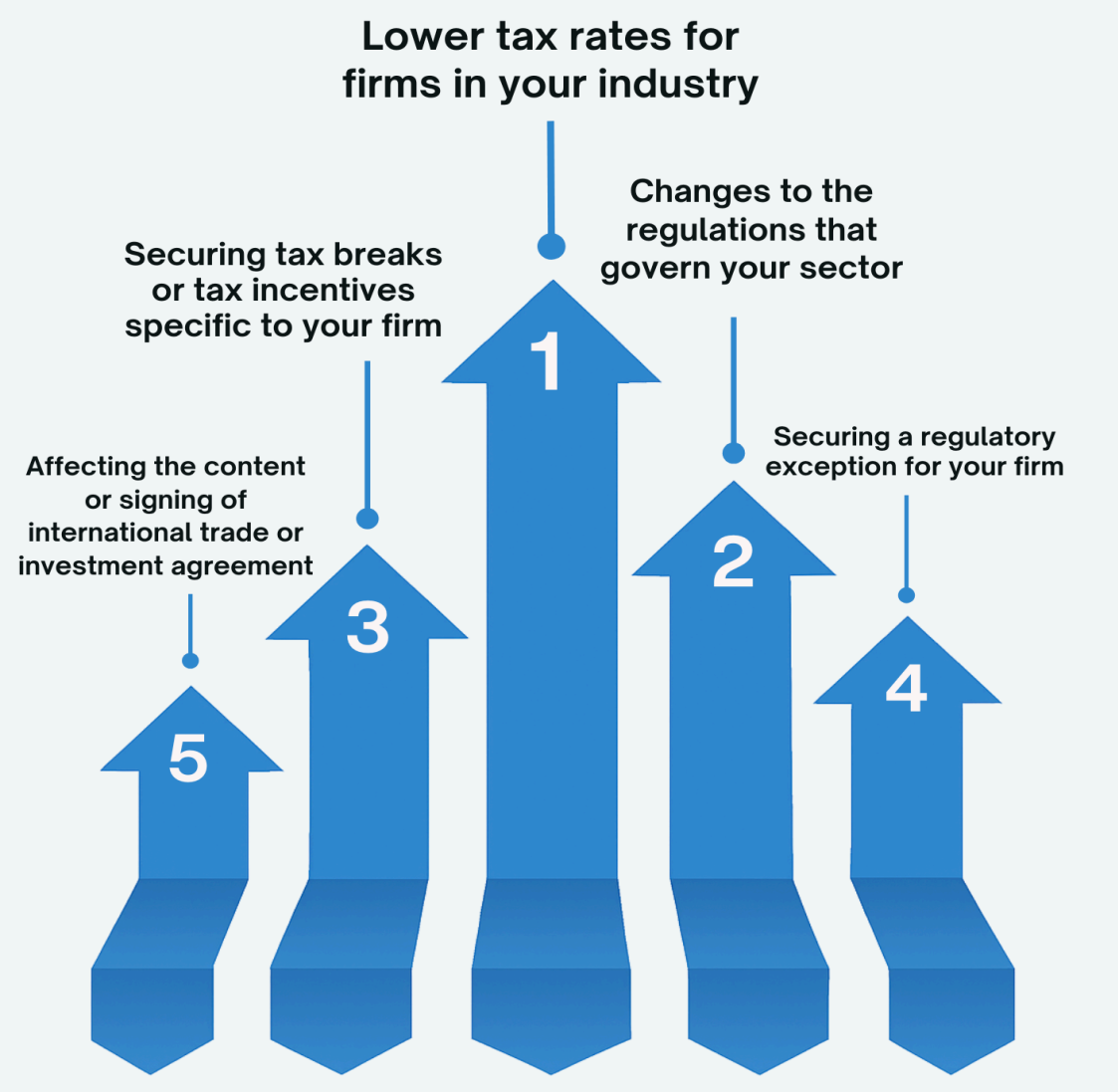
- Indonesia and Malaysia stand out for their strong and consistent prioritization of cleaner production technology, even under civil society and customer-driven scenarios. These countries may benefit from subsidies or financing instruments that scale up capital-intensive sustainability technologies.
- Vietnam shows a distinct preference for wastewater treatment across scenarios, coupled with high agreement on environmental benefit under both NGO and regulatory pressure. This suggests a readiness for infrastructure-targeted environmental policies, especially in industrial zones.
- Philippines firms are highly responsive to customer expectations, with the highest share of firms (33%) willing to invest over 15% of annual operating costs under the *Consumer Demand* scenario. Tailored green supply chain policies and client certification schemes may be particularly effective here.
- Cambodian firms show consistently high agreement on environmental impact across all scenarios. This suggests an opportunity to leverage regional partnerships and donor engagement to co-develop compliance mechanisms and implementation support.
- Laos exhibits moderate levels of engagement across scenarios. Investment willingness remains concentrated in the 0.1%–5% range, indicating the need for low-cost compliance pathways and technical assistance programs targeting resource-constrained firms.

Regulation and Governance

In the area of governance, respondent firms prioritise issues surrounding taxation and tax relief or incentives. As seen in Figure 4.1, industry-wide lowered tax rates emerge as the most important issue for respondent firms. The second most important issue for firms is firm-specific tax breaks and incentives. Regulatory issues generally stand as middling issues, with sector-focused regulatory changes and firm-specific regulatory exceptions in third and fourth place respectively. Finally, respondent firms across all surveyed ASEAN countries placed less priority on the content or signing of international trade or investment agreements, with this issue coming in last place.

Figure 4.1 Important Issue Areas Ranked By Firms
(Average Ranking Across Countries, 1 Being Most Important)

Figure 4.2 Average Ranking of Issue Areas in Singapore (1 Being Most Important)



The top priority for respondent firms in Singapore is lowered tax rates for various industries, suggesting its urgency and importance.[40] Changes to regulations that govern various sectors come in second. This is slightly different from the general trend across ASEAN, reflecting heightened emphasis on seeking regulatory changes, suggesting a heightened alertness in Singapore to policy

[40] From 1 January 2025, Singapore implemented the Domestic Top-up Tax (DTT) and the Multinational Enterprise Top-up Tax (MTT) in alignment with Base Erosion and Profit Shifting 2.0 (BEPS 2.0). DTT and MTT impose a minimum ETR of 15% on large multinational enterprises. *BEPS Explainer*, Ministry of Finance, accessed from https://www.mof.gov.sg/policies/taxes/beps-explainer.

shifts and economic governance. Firm-specific tax breaks and incentives as well as firm-specific regulatory exceptions come in third and fourth respectively, suggesting that while these issues were somewhat important for respondent firms in Singapore, firm-focused issues take less priority in favour of sector-wide changes. Finally, the ability to affect content or signing of international trade and investment agreements comes last, putting the issue at the lowest importance for respondent firms in Singapore.

Overall, Singapore-based firms prioritise structural competitiveness, preferring to push for changes that will enhance the competitiveness of businesses at a sectoral or industry-wide level. Solutions targeted at specific firms may have some level of importance, but are not of vital importance, highlighting firms' stronger views on the efficacy of sector-wide changes. International agreements are of low concern as well, suggesting a heightened focus on the more immediate and practical issues.

In Other ASEAN Countries

The concerns over tax-related issues seem to be shared across the region, primarily due to their direct impact on business costs, investment strategies or compliance burdens:

- Lower industry-wide tax rates dominate across the board, especially in Indonesia and Vietnam.
- Targeted tax breaks and incentives come second, especially in Cambodia and Malaysia.
- Changes to sectoral regulations are generally a middling issue, with firms in the Philippines and Vietnam placing slightly higher focus on it than their regional peers.
- Firm-specific regulatory exceptions and international trade and investment agreements consistently rank low across the board, particularly in Indonesia and Vietnam.

Cambodia is an outlier in this trend, with firms prioritising firm-specific tax incentives over lowered industry-wide tax rates. Laos is the only country where trade agreements are not in last place, suggesting that recent regional trade efforts may have had visible impacts on firms in Laos.

Importance of Business Associations

In dealing with various business issues, respondent firms across the surveyed countries tend to prioritise working with business associations or trade associations and chambers (TACs), over working alone and working with other firms without the involvement of business associations or TACs.

Cross-Country Highlights:

- Firms in the Philippines and Singapore tend to commit greater amounts of effort towards working with business associations and TACs, with 22.7% of respondents in the Philippines

and 18.2% of respondents in Singapore allocating between 81% to 100% of their firms' efforts to working with business associations and TACs to navigate business issues.

- Respondent firms in Cambodia, Malaysia and Indonesia tend to commit a greater amount of effort towards navigating business issues on their own.
- Firms in Laos tend to not concentrate their efforts towards working with business associations, TACs, with other firms or alone, and generally prefer to spread their efforts out across these areas.
- Firms in Vietnam tend to commit a greater amount of effort towards working alone, with 24.9% of respondent firms allocating 41% to 60% of their efforts towards working alone. There, 21.5% of respondent firms also indicate allocating 81% to 100% of their efforts towards working alone. At the same time, a sizeable proportion (35%) of respondent firms allocate 26% to 50% of their firms' efforts, and 20.9% of respondent firms allocate 41% to 60% of their firms' efforts to working directly with other firms.

Figure 4.3 Percentage of Firm Efforts Towards Cooperation with Business Organisations

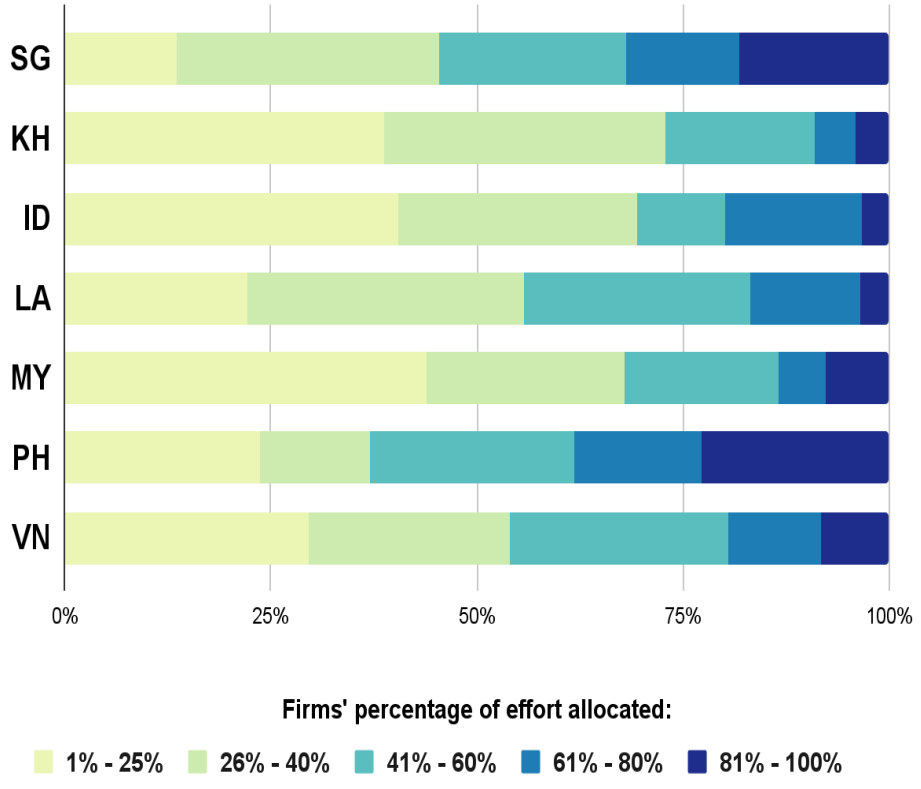


Figure 4.4 Percentage of Firm Efforts Towards Cooperation with Other Firms

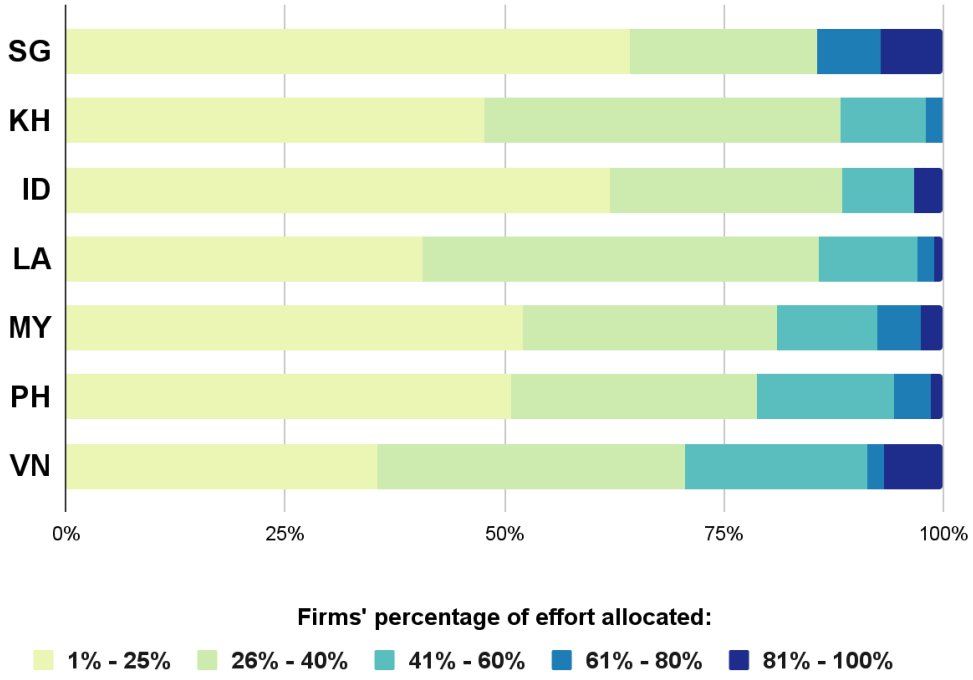
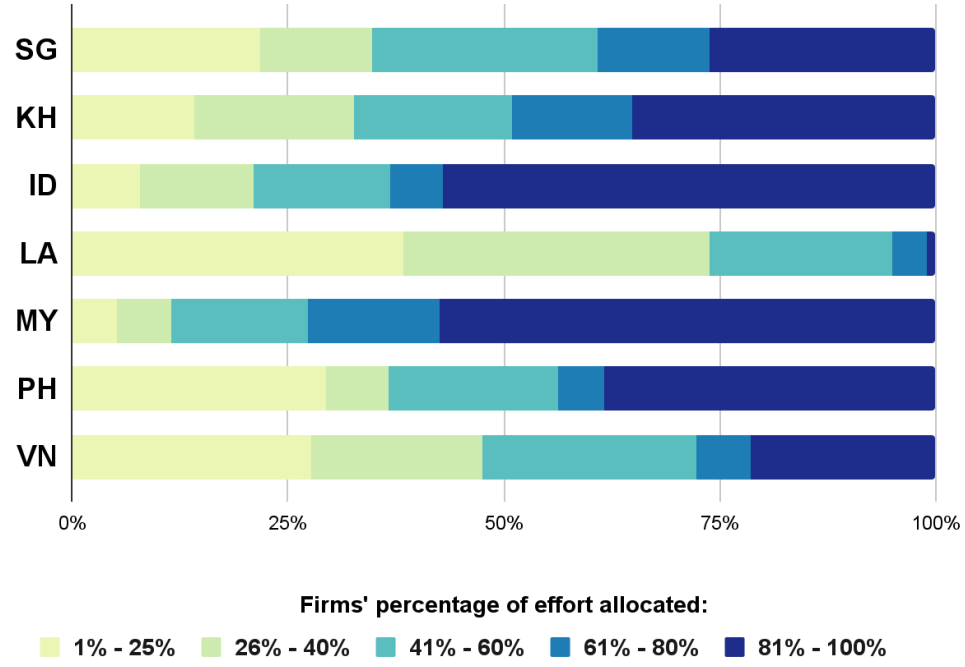


Figure 4.5 Percentage of Firm Efforts in Working Independently



Cooperating with Business Associations, TACs and Other Types of Organisations

Figures 4.3, 4.4 and 4.5 above show that respondent firms spend a significant portion of their efforts working with business associations and TACs. Singapore-based firms demonstrate a relatively strong preference for institutional cooperation, with over 86% allocating more than 25% of their effort towards this type of engagement. The most prominent response band is 26%–40% effort (31.8%), followed by notable segments in the 41%–60% (22.7%) and 81%–100% (18.2%) ranges. This may suggest that a strong majority of firms in Singapore are confident in cooperating with business associations and TACs.

In other ASEAN countries:

- At least 24% of respondent firms in most countries report allocating around 26% to 40% of their efforts towards cooperating with a business association or TAC. Respondent firms in Laos lead in this band at 33.6%.
- In the higher bands, respondent firms in the Philippines lead: 24.7% of respondent firms report allocating 41% to 60% of their firms' efforts, and 22.7% of respondent firms report allocating 81% to 100% of their firms' efforts.

Direct Cooperation with Other Firms

Singapore-based firms appear less interested in unstructured or decentralised cooperation, signalling a preference for collaboration through more formal organisations rather than through other firms.

- A striking 64.3% of respondent firms in Singapore report allocating low efforts towards working with other firms.
- Only a small share (21.43%) of respondent firms report moderate efforts (26%–40%) in working with other firms not via an organisation
- Remaining effort bands (41% and above effort) barely register.

Direct cooperation with other firms also appears generally unpopular among respondent firms across all other surveyed ASEAN countries.

- Across most countries, at least 40% of respondent firms indicate allocating low efforts towards working with other firms directly without involvement from an organisation.
- Firms in Vietnam buck the trend, with only 35.6% of firms doing so. Instead, 35% of respondent firms indicate allocating 26% to 40% of their firms' efforts, and 20.9% indicate allocating between 41% to 60% of their firm's efforts on working with other firms.

Working Independently

Despite a strong inclination towards structured cooperation, Singapore's firms still maintain a notable level of independent activity. Around 26.09% of Singapore-based firms allocate 81%–100% of their effort to working alone. Moderate engagement across the lower and mid-effort bands in this category also suggests that while many firms are engaging through formal structures, a significant proportion of firms maintain a high level of autonomy.

Working alone is similarly a somewhat popular second choice for respondent firms across the region, with a significant proportion of firms in various countries preferring to allocate 26% or more effort into doing so:

- 85.85% of firms in Cambodia
- 61.61% of firms in Laos
- 70.53% of firms in the Philippines
- 72.31% of firms in Vietnam

The role of business associations and TACs cannot be downplayed, however. Business associations and TACs play a crucial role as intermediaries between businesses and governing bodies, addressing concerns about policies and regulatory requirements. They also support smaller firms by providing resources and fostering collaboration across industries. Empowering these associations further could help businesses navigate the challenges of the global economy and government-imposed measures.

Challenges of Going Global

Increasing exports and overseas expansion tend to be universal challenges for firms globally. To gain deeper insights into the barriers and potential enablers of export growth, respondents were asked two open-ended questions. Respondents were asked to describe, in their own words, the key challenges firms like theirs face when trying to export or expand abroad. They were also asked to suggest what types of support the government could offer to help address these hurdles. The resulting responses provide a rich, unfiltered look at what businesses need and how the government can help.

Challenges Firms Face in Increasing Exports or Expanding Overseas

In Singapore, firms pursuing export growth or overseas expansion face a complex combination of challenges, as evidenced in Figure 4.6. Rising operational costs, logistics costs, limited capital for expansion, and taxation burdens are frequently cited, with many firms concerned about the limited returns from highly competitive global markets that can produce at lower costs. Manpower challenges are also prominent; respondents highlight difficulties in employing skilled labour at a sustainable cost as key obstacles, alongside a general lack of expertise in navigating foreign markets. Currency fluctuations and regulatory compliance issues, including unfamiliarity with foreign procedures and the need for clear approvals, further slow momentum. Market access

remains a fundamental concern, particularly where trade barriers, language barriers, and cultural differences limit effective engagement. Meanwhile, the groundwork for expansion—such as logistics infrastructure, obtaining telecommunications licenses and establishing reliable local partnerships abroad—remains a significant barrier for many firms.

Similar concerns echo across the other ASEAN countries, as seen in Figure 4.7. The issue of cost remains a persistent challenge throughout the region, with insufficient capital, high operational expenses, and export-related costs—including logistics cost, compliance fees and export taxes—frequently cited. These are often compounded by challenges around regulatory compliance, limited access to trade finance, and skilled labour shortages.

- Firms in Laos, Malaysia, and Vietnam specifically highlight financial limitations as barriers to scaling operations, acquiring certifications, and securing market access.
- Manpower issues are frequently exacerbated by outdated production systems or informal business practices, particularly in countries like Laos.
- High shipping costs, shelf-life constraints and complex export documentation pose significant difficulties across the board, especially in Cambodia and the Philippines.
- Several respondents note limited demand in target markets, intense global competition—especially from lower-cost foreign producers—and branding or marketing limitations that hinder outreach efforts.

Compounding these challenges are broader external pressures, including currency fluctuation, price volatility, climate change and global economic uncertainty—all of which add further complexity for firms seeking to increase exports or expand overseas.

Figure 4.6 Issues Singapore-based Firms Face in Expanding Exports and Overseas Operations

Figure 4.7 Issues ASEAN Firms Face in Expanding Exports and Overseas Operations

Support for Firms to Help Increase Exports or Overseas Expansion

Across the board, respondent firms wish to see heightened systemic support in their efforts to increase exports and expand overseas. Figures 4.8 and 4.9 show the support that respondent firms wish to attain from the government, in Singapore and in other ASEAN countries respectively. In Singapore, respondent firms highlight the need for stronger partnerships to facilitate smoother international expansion, combined with financial assistance such as tax incentives, subsidies and export grants—primarily to retain manpower and navigate high domestic costs. Firms also indicate a need for more targeted support to boost export readiness, including training programmes, coaching and technical assistance, as well as greater access to market intelligence and market research. Clarity on documentation and regulatory processes, along with more active regulatory guidance and engagement with relevant bodies to streamline approvals abroad, was another recurring theme. Respondents also express a need for simplified administrative procedures and customs facilitation to make the export and overseas expansion process more accessible, standardised and efficient.

Respondent firms from other ASEAN countries indicate overlapping concerns. Prominently, assistance in building capital—whether through loans, subsidies, or grants—particularly for SMEs, recurs across all countries. Calls for standardised and streamlined processes, along with clear regulatory frameworks, also resound widely. Firms consistently look towards tax incentives and simplified taxation procedures as a way to offset export costs and better navigate bureaucratic hurdles. Across the board, there is also strong interest in enhanced customs facilitation and broader access to market intelligence to better inform international strategy and execution.

- In Vietnam, Laos, and the Philippines, firms emphasise the need for training programmes and workforce development, alongside assistance in navigating international standards.
- Respondents in Laos, Malaysia and the Philippines, in particular, express a strong desire for greater promotion of their trade to boost visibility and partnerships on global stages.
- Logistical challenges remain a key pain point, and firms look towards targeted support: cold-chain development in the Philippines, subsidised shipping and transport route expansion in Laos and modern port investment in Malaysia.

Figure 4.8 Key Forms of Support the Singapore Government Could Provide to Firms to Help Firms Increase Exports or Expand Overseas

Figure 4.9 Key Forms of Support Other ASEAN Governments Could Provide to Firms to Help Firms Increase Exports or Expand Overseas

Country Highlights:

- **Singapore**: Facing manpower shortages, cost pressures, regulations, strong global competition, and supply chain issues. Firms seek tax relief, export coaching, market research, regulatory clarity and engagement, subsidies, automation support and streamlined export procedures.
- **Malaysia**: Struggling with logistics costs, scaling, issues with competitiveness and certification gaps. Support needed: training, financing, streamlined bureaucracy, modern port infrastructure and trade promotion support.
- **Vietnam**: Issues with compliance costs, logistics, and competition. Firms call for policy harmonisation, clearer export steps, compliance support and training for workforce development.
- **Indonesia**: Issues with high customs taxes, logistics issues and weak demand. Needs: simpler export procedures, training, better local coordination.
- **Philippines**: Limited export support, manpower issues, instability. Firms request cold chain investment, digitised processes, infrastructure aid, training and greater trade promotion support.
- **Laos**: Manual processes, cost concerns, complex paperwork. Calls for training, logistics hubs, modern equipment, transport route expansion and promotion on international platforms.
- **Cambodia**: Difficulties with costs, weak logistics, low demand, and unfamiliar or unclear regulations. Seeks customs reform, partner networks, market access support and clearer regulatory guidance.

Utilisation of Free Trade Agreements

Amidst growing uncertainty in the global trading order, Free Trade Agreements (FTAs) have become increasingly vital instruments for securing predictable market access and supporting firm-level competitiveness. For decades, Singapore-based firms have benefited from a liberal global trading system—leveraging low tariffs and expansive market entry to grow exports, diversify production and integrate into global value chains. However, the rise of protectionist measures, such as the imposition of US tariffs on Chinese goods and the American withdrawal from the original Trans-Pacific Partnership, has disrupted long-standing assumptions about open markets. Renewed tariff threats under a second Trump administration underscore the need for alternative frameworks that preserve trade stability.

In this evolving landscape, FTAs offer firms a structured, rules-based path to maintain access to key international markets. Utilising these agreements requires securing a Rules of Origin (ROO) certificate or certificate of origin (CO), which confirms that exported products meet the origin criteria under a specific FTA. While many firms in Southeast Asia have started to take advantage of these

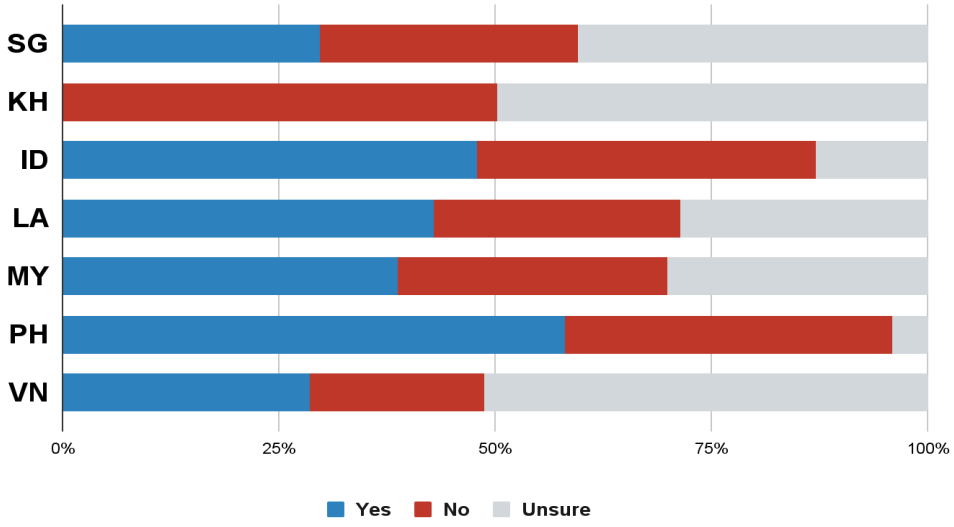
provisions, uptake remains uneven across countries. This section presents survey findings that explore the incidence of ROO certification, reasons firms may not apply for it, and the key sources of support that enable firms to access FTA benefits. The discussion highlights both the challenges and opportunities in expanding FTA utilisation, with a particular focus on the Singapore case in a comparative context.

Uptake of Rules of Origin Certificates

As shown in Figure 4.10, the uptake of Rules of Origin (ROO) certificates varies widely across the seven surveyed Southeast Asian countries. Among Singapore-based firms, 29.7% report having secured an ROO certificate under at least one FTA—similar to Vietnam (28.5%), and slightly lower than uptake rates in Malaysia (38.7%), Indonesia (47.8%), Laos (42.9%), and particularly the Philippines (58.0%). Notably, 40.5% of Singapore respondents report not knowing whether they have an ROO certificate, suggesting a significant information gap that may suppress effective FTA usage.

In contrast, Cambodia reports the lowest uptake (0.0%) alongside a high degree of uncertainty (49.8%), indicating both limited utilisation and awareness among firms. Across countries, the “I don’t know” response category highlights the ongoing need for outreach, education and procedural clarity regarding ROO certification.

Figure 4.10 Share of Firms with Rules of Origin Certificates



Applying for Certificates of Origin

Figure 4.11 provides information on why firms may not pursue ROO certification, offering insight into factors affecting FTA utilisation. For Singapore, the top reason cited by firms (35.0%) is the absence of relevant FTAs for their traded goods. This is particularly salient for firms in the tertiary and quaternary sectors, where existing FTAs may not apply or are perceived to offer limited value.

A second major factor is export volume: 30.0% of non-applying Singapore-based firms report that their export volumes are too small to meet thresholds for ROO certification—such as US$200 for ASEAN Free Trade Areas (AFTA) or US$1,000 for the Comprehensive and Progressive Trans Pacific Partnership.[41] Other frequently cited factors include lack of client demand for FTA usage (15.0%), uncertainty about how to apply (10.0%), and the complexity or perceived cost of procedures (5.0%).

These patterns are echoed in other countries, though the relative weight of each reason varies. For example, Indonesia and Vietnam show higher concern with procedural complexity and small volumes.

Sources of Support for FTA Utilisation

Among firms that do secure ROO certificates, Figure 4.12 highlights the importance of institutional and peer support. In Singapore, firms most commonly cite government agencies (31.6%) as the primary enabler of ROO acquisition, followed by industry associations or chambers of commerce (21.1%), and professional service providers (18.4%) such as law, consulting or logistics firms. A smaller but notable share also rely on business associates (15.8%) or require no assistance (10.5%).

This underscores the critical role of public and private intermediaries in helping firms navigate the technical and administrative requirements of FTAs. Similar support structures are evident in other countries, with particularly strong engagement from industry associations in Cambodia, the Philippines and Vietnam. Business associates—suppliers or clients—also play an important role, especially in Indonesia and the Philippines.

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[41] From Rule 14 of the *Operational Certification Procedures for the Rules of Origin of the ASEAN Common Effective Preferential Tariff Scheme for ASEAN Free Trade Area*. Association of Southeast Asian Nations, accessed from https://asean.org/operational-certification-procedures-for-the-rules-of-origin-of-the-asean-common-effective-preferential-tariff-scheme-for-asean-free-trade-area/; from the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) Legal Text. Enterprise Singapore, accessed from https://www.enterprisesg.gov.sg/-/media/esg/files/non-financial-assistance/for-companies/free-trade-agreements/cptpp/cptpp-legal-text.pdf.

Figure 4.11: Applying for Rules of Origin Certificates

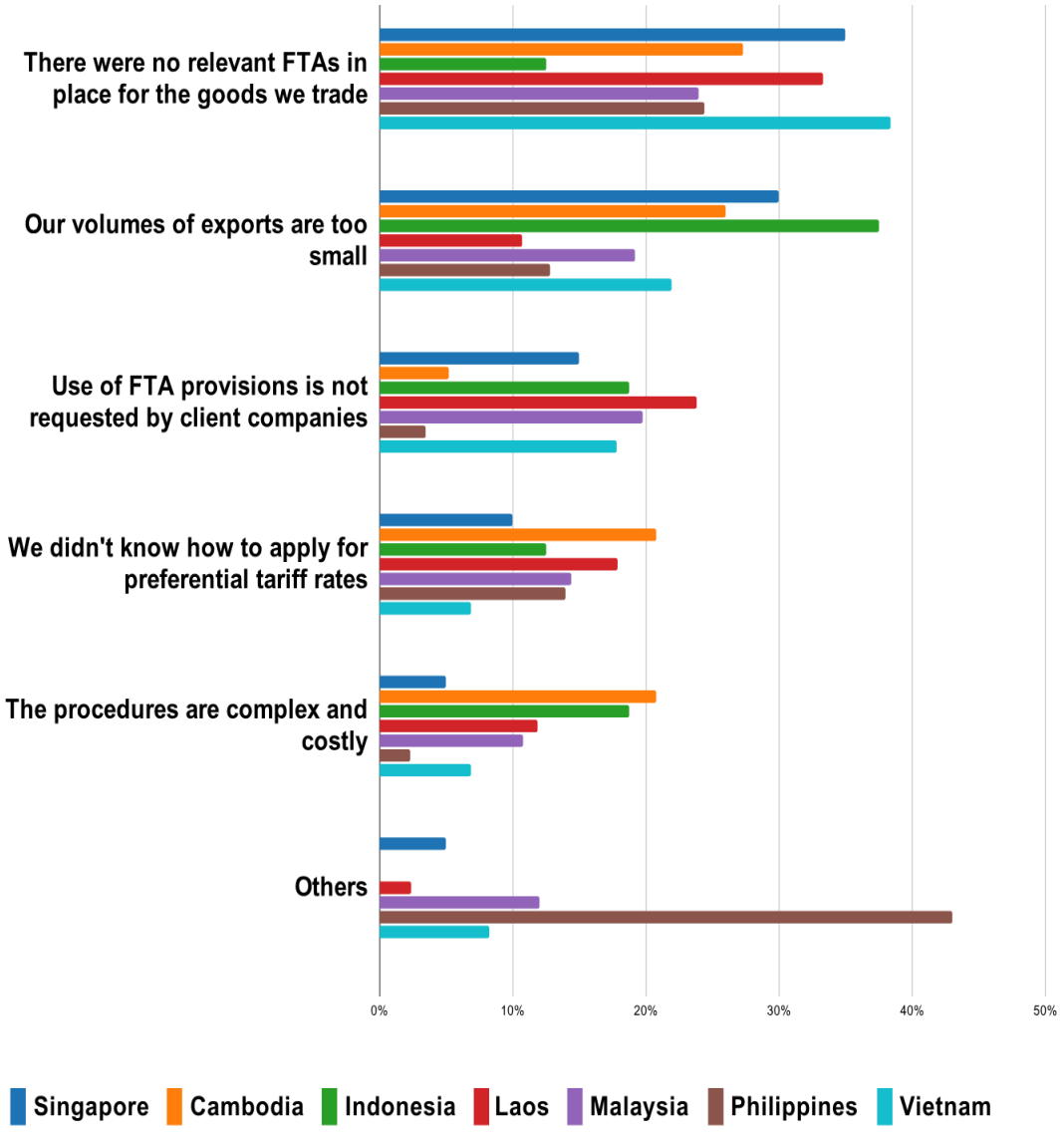
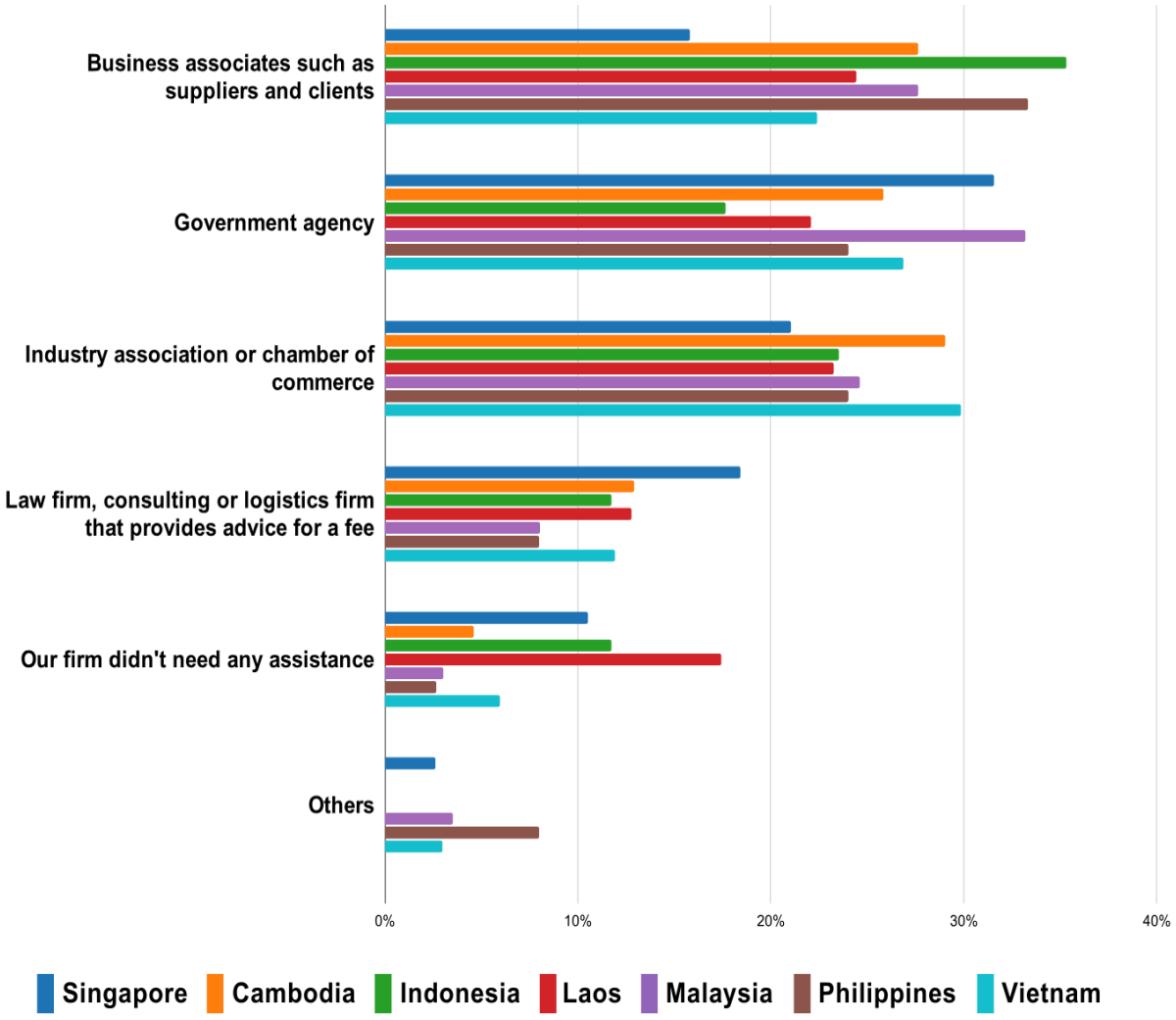


Figure 4.12 Sources of Assistance Used to Secure Rules of Origin Certificates



The data show that while many firms across Southeast Asia are beginning to utilise FTAs, significant gaps remain in awareness, capacity and procedural know-how. In Singapore, despite strong institutional support and a favourable business environment, more than two-thirds of firms either do not use or are unsure about their ROO status. The relatively high share of service-sector and SME respondents helps explain this pattern.

At the same time, the findings point to clear opportunities. Strengthening outreach, streamlining procedures and expanding FTA coverage to better reflect the structure of modern trade—especially in services and digital goods—can all help boost utilisation. Importantly, industry associations and government bodies play a foundational role in equipping firms with the knowledge and confidence to access preferential trade regimes.

Summary: Regulation and Governance

- **Taxation and regulatory compliance dominate governance concerns across the region.** Firms in all seven countries highlight taxation as the most pressing regulatory issue. These concerns include the complexity of tax procedures, frequent changes to tax rules, and unpredictability in enforcement. In Singapore, although the regulatory environment is generally seen as efficient, firms still express concern over compliance burdens and administrative costs, particularly for cross-border operations.

- **Business associations play a central role in regulatory navigation and firm support.** Firms express a strong preference for working with business associations rather than operating independently. These associations serve as intermediaries that help firms interpret new regulations, advocate for business interests, and provide access to training, market information, and export assistance. In Singapore, sector-specific business associations are particularly important for smaller firms lacking in-house policy capacity.

- **Collaboration with associations is more common than firm-to-firm or independent engagement.** While some firms in Indonesia, Vietnam, and Malaysia report direct cooperation with peer firms, overall, inter-firm collaboration is limited across the region. Few firms indicate that they prefer working entirely independently. Instead, firms turn to associations as platforms for collective voice and shared services.

- **Key barriers to internationalization include costs, complexity, and regulatory hurdles.** Firms across Southeast Asia face a range of obstacles to expanding exports or establishing an overseas presence. The most frequently cited challenges include:
    - High costs of export market entry, including logistics and certification fees
    - Complex documentation and customs procedures
    - Lack of information or uncertainty about destination market regulations
    - Difficulty in identifying trusted foreign partners or clients
      Singapore-based firms emphasise the need for streamlined digital documentation and stronger government-to-government coordination to facilitate regional trade.

- **Firms seek targeted export support to overcome internationalization constraints.** Commonly requested forms of assistance include:
    - Financial subsidies for certification, marketing, and compliance costs
    - Training programs to improve export readiness and knowledge of foreign regulations
    - Business matching and trade fair participation facilitated by government agencies
    - Greater coordination between trade promotion agencies and industry associations

- **Use of Free Trade Agreements (FTAs) is uneven across countries and sectors.**
    - In countries like **Malaysia**, **Vietnam**, and **Indonesia**, FTA utilization is relatively high, with firms actively pursuing Rules of Origin (ROO) certificates.

    - In **Singapore**, the proportion of firms holding ROO certificates is lower. This reflects both the limited relevance of many FTAs for service-oriented or domestically focused firms, and the relatively low export intensity among SMEs.
    - Across countries, firms report that even when FTAs are available, the procedures for applying for ROO certificates are often seen as burdensome, confusing, or resource-intensive—particularly for small firms.

- **Business associations and public agencies are crucial sources of FTA support.** Firms identify national export agencies, customs authorities, and business associations as the most useful sources of support when navigating FTAs. Firms request:
    - Simplified application processes for ROO certificates
    - Training on eligibility requirements and benefits of specific FTAs
    - Digital tools or advisory services that help match firm products with relevant trade agreements

- **Singapore-based firms express a desire for expanded FTA coverage and clearer guidance.** They highlight the importance of securing trade agreements that are tailored to the digital economy and services trade. Moreover, there is strong interest in guidance that clarifies which FTAs are applicable and how SMEs can qualify for them, especially in sectors such as logistics, digital services, and niche manufacturing.

Regional Outlook: Singapore and Its Neighbours

In an increasingly fragmented global economy, regional integration has become a cornerstone of Singapore's economic strategy. As a small and mature economy with limited domestic demand, Singapore depends on regional and global linkages to sustain growth. The ASEAN Economic Community (AEC), established in 2015, has provided an essential platform for such engagement—offering expanded markets, diversified supply chains and access to skilled labour across Southeast Asia.

Singapore-based firms report particularly strong benefits from the AEC. According to the ASEAN Firm Survey 2025, 20.8% of Singapore-based firms identified increased overseas investment opportunities as the top advantage, followed by 16.7% citing expanded export markets and 14.6% noting both digital connectivity and access to skilled labour. These align closely with Singapore's strengths in global finance, digital services and capital deployment.

As shown in Figure 5.1, this pattern suggests that Singapore-based firms are leveraging ASEAN integration, not only to boost trade but also to deepen investment ties and digital infrastructure links across the region. For a small economy like Singapore, access to regional resources—human, capital and digital—provides important pathways for diversification and resilience.

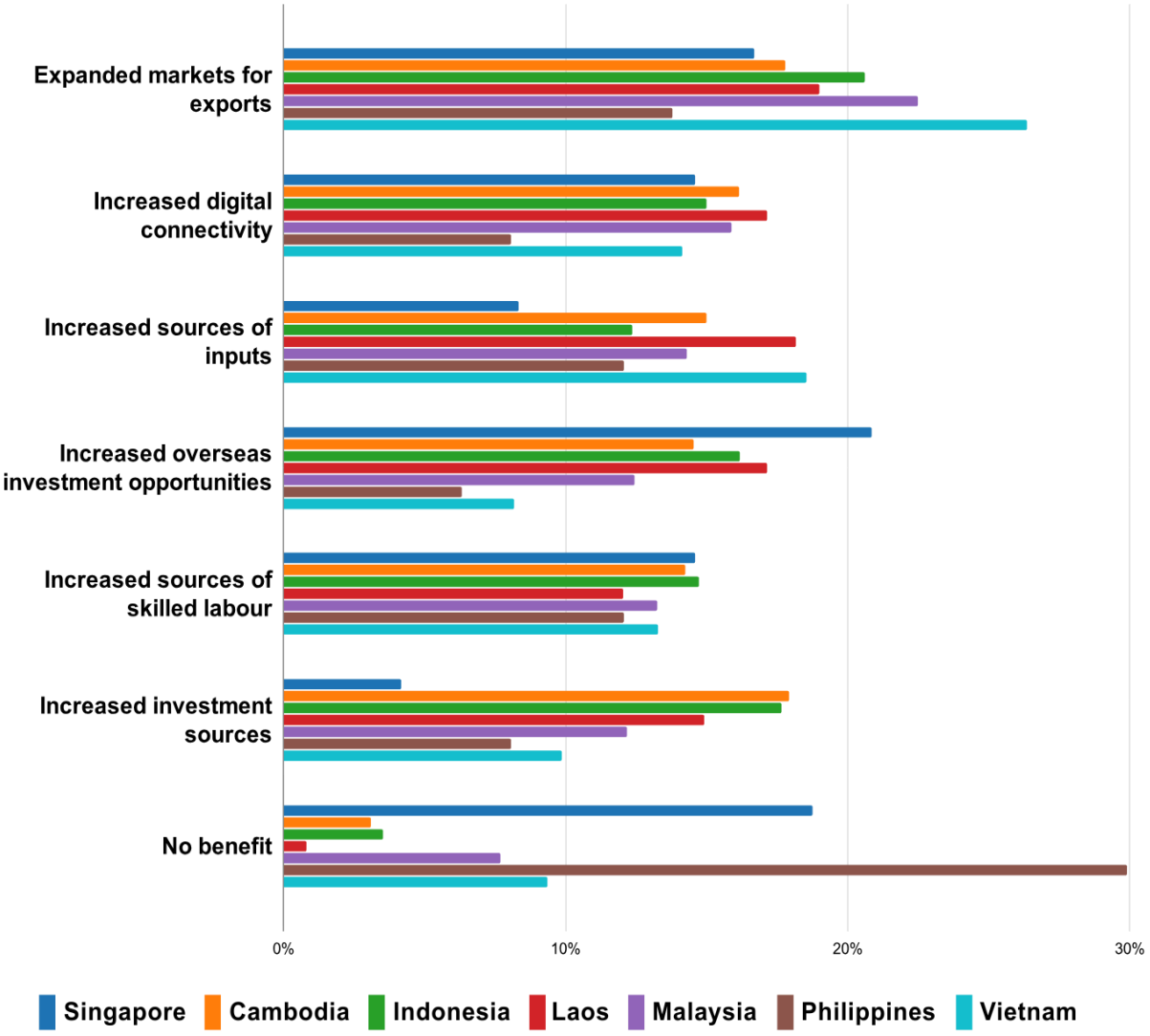
The AEC has offered varied benefits across the region, reflecting differing economic structures and firm-level priorities. While Singapore-based firms emphasise digital and investment gains, other ASEAN members report benefits more aligned with trade and production integration.

Country highlights:

- **Singapore**: Firms highlight strong gains in overseas investment, export market access and digital connectivity—in keeping with its role as a global hub for capital and digital trade.
- **Vietnam and Cambodia**: Stand out for their firms' strong focus on expanded export markets and input sourcing, consistent with their roles in regional production networks.
- **Malaysia and Indonesia**: Present a more balanced benefit distribution, with firms citing gains across digital, labour, investment and trade.
- **Laos and Cambodia**: Firms note benefits particularly in **i**nput sourcing and digital infrastructure, underscoring how even lower-income members are integrating into regional flows.
- **Philippines**: Nearly 30% of firms report no benefit from the AEC—far higher than any other country—indicating possible barriers to engagement or policy disconnects at the national level.

This diversity of experiences highlights both the strength and the ongoing challenges of the AEC framework. For Singapore, the regional platform provides vital strategic leverage. For others, further reforms and support may be needed to more fully realise the promise of ASEAN economic integration.

Figure 5.1 Benefits of the ASEAN Economic Community as Perceived by Firms

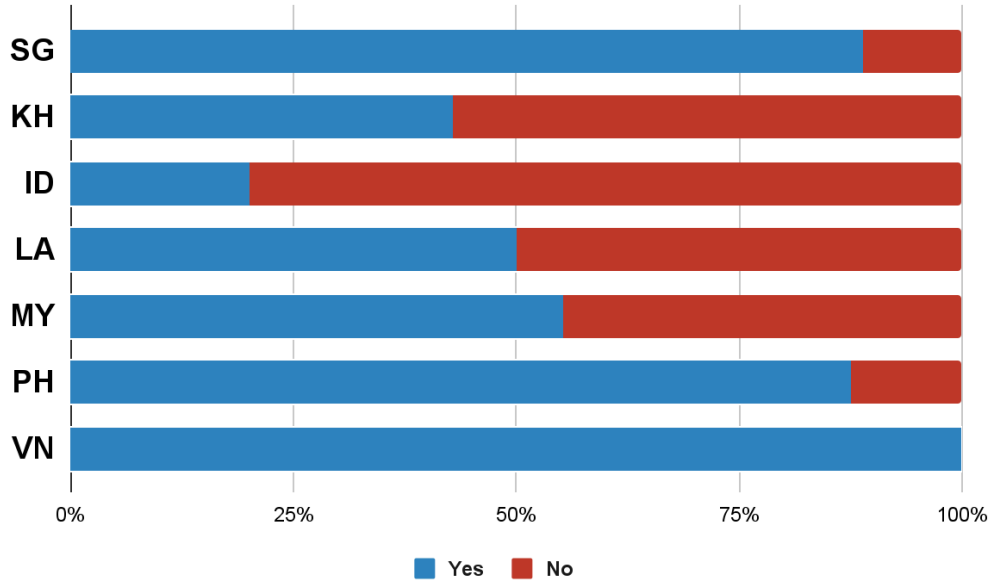


A Regional Appetite for Reform

While the AEC has brought clear benefits to many firms across the region, the 2025 ASEAN Firm Survey reveals a widespread sentiment: the framework must evolve to remain effective in a rapidly changing global economy.

Singapore-based firms are particularly vocal in this regard. As illustrated in Figure 5.2, nearly 89% of surveyed firms in Singapore believe the AEC should be reformed to better address the needs of the private sector. This aligns with their forward-leaning focus on digital infrastructure, investment facilitation, and regulatory efficiency—areas where regional frameworks must evolve to stay competitive. The call for reform is not limited to Singapore. Across the region, a significant proportion of firms—especially those deeply embedded in cross-border trade—express a desire for a more streamlined and supportive AEC.

Figure 5.2 Can the AEC Be Reformed to Better Meet Private Sector Needs?



- **Singapore**: 88.9% of surveyed firms support reform of the AEC. Singapore-based firms point to the need for more agile digital trade rules, improved regional investment facilitation and streamlined regulatory coordination to keep pace with a fast-changing global economy.
- **Vietnam**: 100% of firms endorse reform—the highest across all ASEAN countries. This reflects Vietnam's deepening role in regional value chains and a strong desire for more interoperable digital systems, expanded market access and greater investment stability.
- **Philippines**: 87.5% of firms support reform, highlighting a strong appetite for better alignment between regional frameworks and domestic business needs—especially for SMEs and firms engaged in export activities.
- **Malaysia**: 55.2% of firms favour reform, pointing to mixed experiences. While some sectors are well integrated into the AEC, others still face regulatory frictions and infrastructure limitations.
- **Laos and Cambodia**: Responses are split at around *50%* in both countries. These results suggest that many firms are still navigating the transition to regional integration, with experiences varying by sector and firm size.
- **Indonesia**: Only 20% of firms support AEC reform—the lowest in the region. This may reflect a perception that domestic reforms and national competitiveness are more pressing priorities than regional rule-making.

These findings underscore ASEAN's diversity: reform appetite is strongest in globally connected economies, while more inward-facing firms are less engaged with regional frameworks. AEC reform, therefore, must strike a balance—accelerating integration for the most engaged economies while offering adaptable, inclusive approaches for others.

In the spirit of future-ready change, some respondents have suggested a number of changes that can better meet firms' needs. Some of the suggestions generally highlight a desire by firms in the region for an even more expanded market for exports, as well as even more opportunities for overseas investment. Other suggestions include further tax incentives or tax relief for regional trade, opportunities for intra-regional collaboration between firms in the same industry or of similar firm size, increased availability and/or movement of skilled manpower in the region, and streamlining of regulatory approvals, certification and other processes across the region, such that the existing system is much more interoperable, efficient and less taxing on firms to wade through.

Figure 5.3 Areas of Reform for the ASEAN Economic Community (Singapore-based firms)

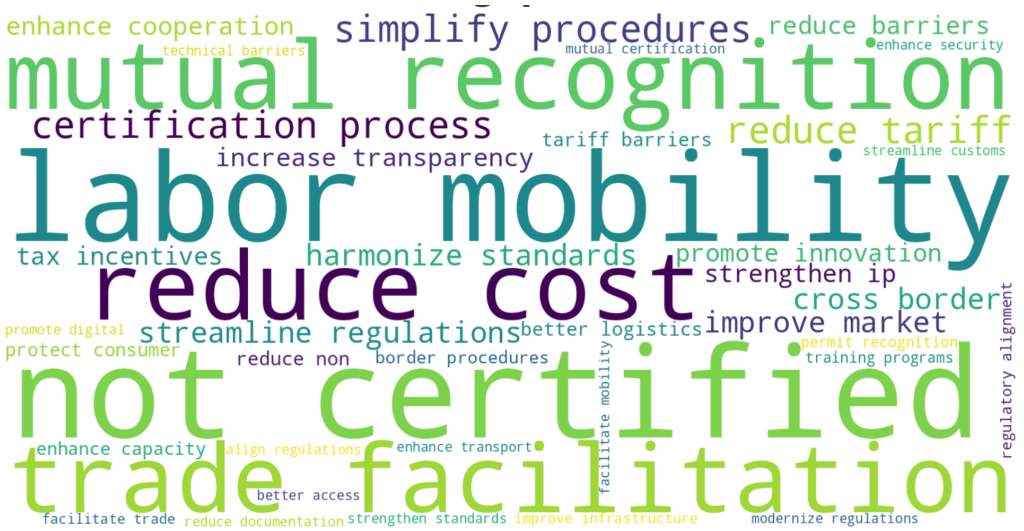


Figure 5.4 Areas of reform for the ASEAN Economic Community (Non-Singapore-based firms)

Priorities for the Future: Shared Challenges, Forward Vision

As the economies of Southeast Asia continue to integrate, the question for firms is no longer whether regionalism matters—but how it can evolve to meet future challenges. The 2025 ASEAN Firm Survey asked firms to identify the most important issue for their competitiveness in the years ahead. Across the region, digital connectivity emerged as the top concern, underscoring its critical role in modern production, trade, and services.

For Singapore-based firms, the emphasis on digital infrastructure reflects a strategic orientation towards the future economy. As shown in Figure 5.5, 15.5% of Singapore-based firms ranked digital connectivity as the most important issue for regional competitiveness. This concern reflects not only domestic reliance on high-quality digital systems but also a vision for a more seamlessly connected ASEAN—where data can flow as easily as goods.

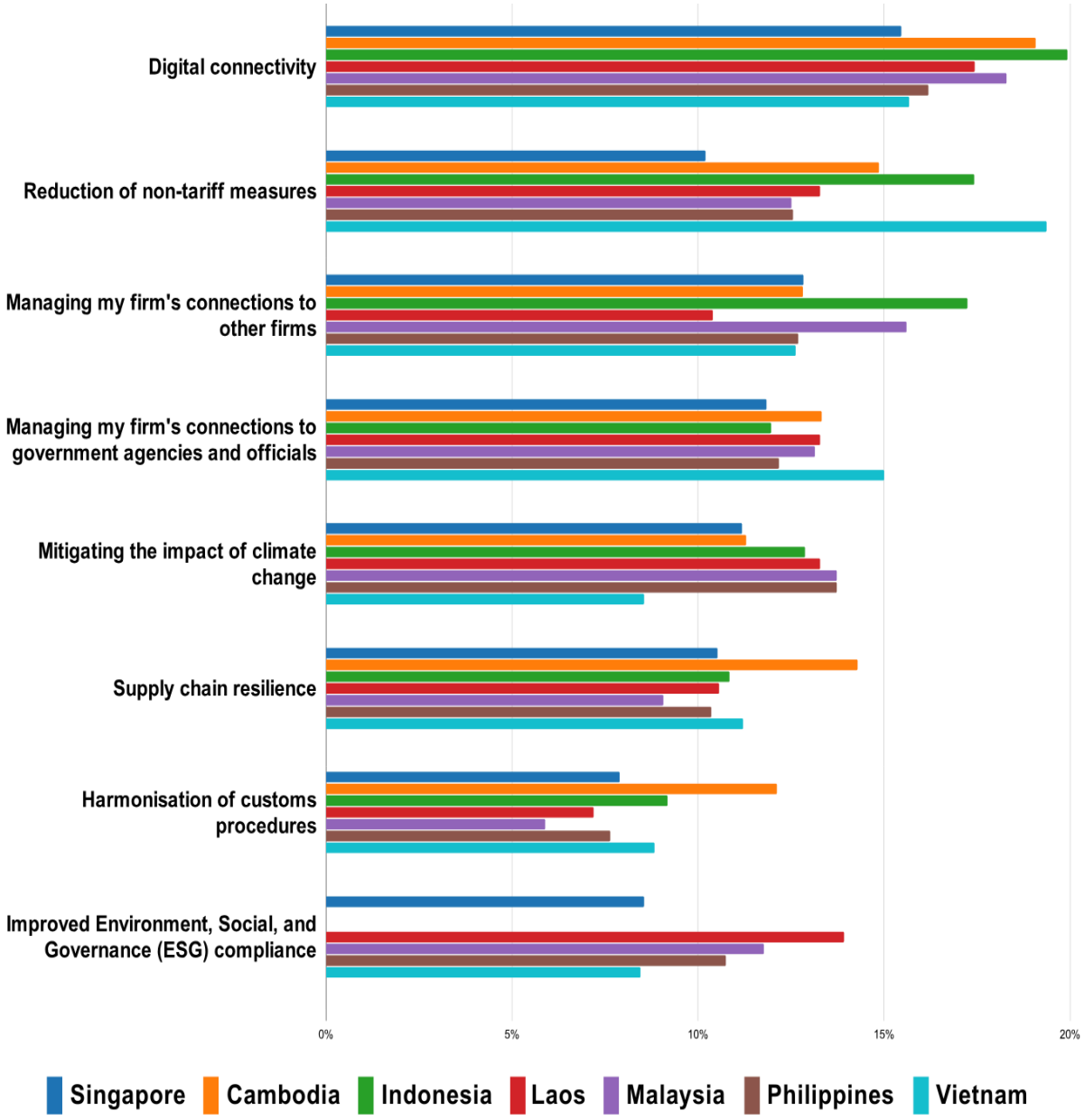
Singapore-based firms are not only adapting to change—they are anticipating it. Their responses suggest a strong desire for:

- **Stronger regional frameworks for digital trade**, including data flows, cybersecurity and regulatory interoperability
- **Collaborative climate mitigation strategies**, as extreme weather and carbon regimes increasingly shape supply chains
- **Reduction of non-tariff measures (NTMs)**, to ensure smoother movement of goods, services and capital
- **Better public-private dialogue channels** to manage connections between firms and governments across ASEAN

While Singapore-based firms operate in a highly developed digital environment, their competitiveness still depends on the quality and accessibility of regional infrastructure. This reflects a broader truth—the region's success will hinge not just on national progress but on collective regional investment in seamless, future-ready systems:

- **Singapore**: Firms highlight digital infrastructure, followed by concerns around climate change impacts, regulatory coordination and NTMs—all of which can disrupt trade and services integration.
- **Indonesia and Cambodia**: Rank digital connectivity even higher (about **20%**)—indicating that both large and small economies recognise its centrality.
- **Vietnam**: Shows a more balanced concern, with firms also emphasising connections with government agencies and NTMs, highlighting the complexity of cross-border business.
- **Philippines and Malaysia**: Emphasise both climate change mitigation and digital systems, pointing to infrastructure vulnerabilities and emerging ESG expectations.
- **Laos**: Reveals high concern for NTMs and ESG compliance, reflecting rising aspirations for global market access.

Figure 5.5 Top Issues for Firm Competitiveness in ASEAN Region by Country



While the AEC has delivered meaningful benefits—especially in expanded export markets, overseas investment opportunities, and digital connectivity—businesses across the region are looking ahead. Firms in Singapore, Vietnam and the Philippines, in particular, express a strong appetite for reform, pointing to the need for more interoperable regulations, improved movement of skilled labour and streamlined investment and trade facilitation mechanisms.

At the same time, shared concerns about digital infrastructure, climate resilience and non-tariff barriers indicate that firms see regional cooperation as critical to navigating a more complex global economy. These views suggest not a rejection of ASEAN's framework but a demand for its evolution. The path forward lies in deepening institutional responsiveness and ensuring that the regional integration agenda remains firmly attuned to the shifting needs of its private sector.

Summary: Regional Outlook

- **Widespread recognition of AEC benefits**
  Firms across all seven survey countries report that the ASEAN Economic Community (AEC) has enhanced regional export access, investment flows, and digital connectivity. These gains are particularly notable among more regionally integrated firms.
- **Calls for greater regulatory alignment and procedural efficiency**
  Businesses emphasise the need for more interoperable regulatory frameworks and simplified trade and investment procedures. Reducing administrative hurdles, especially in customs and standards compliance, is seen as essential for scaling regional operations.
- **Concerns over uneven digital and sustainability infrastructure**
  Firms highlight persistent gaps in digital infrastructure, especially in Cambodia and Laos, which hinder broader digital engagement. Climate resilience is also flagged as a growing challenge, with firms identifying environmental vulnerabilities and adaptation constraints.
- **Persistent non-tariff barriers (NTBs)**
  NTBs remain a common concern, with firms in multiple countries pointing to inconsistent product standards, customs delays, and opaque licensing practices as key obstacles to intra-ASEAN trade.
- **Support for deeper ASEAN cooperation, but with institutional reforms**
  Firms support ASEAN's integration agenda but call for stronger institutional responsiveness. They want clearer communication channels, more transparent policymaking, and a greater role for the private sector in shaping regional frameworks.
- **Priority areas identified by firms**
  Across countries, firms express interest in enhanced mobility for skilled labour, expanded FTA coverage, digital services integration, and investment in cross-border infrastructure to support long-term competitiveness.

Conclusion

Global economic uncertainty is rising amidst climate concerns, rapid tech growth and shifting policies by superpowers. In response, ASEAN economies scramble to navigate the new era, with some adopting protectionist policies and looking towards regional cooperation for answers.[42]

In Singapore, firms tend to be forward-looking, measured and pragmatic, taking calculated steps to adapt to the uncertain economic climate while looking towards structural support to provide a suitable roadmap as well as stability for the way forward. Existing policies have generally provided some support to firms in various areas:

- **Automation and digitalisation**: Most firms are moderately automated and plan on automating more, with strong online engagement in advertising, logistics and procurement. Firms generally view current policies[43] positively, with some taking a more neutral stance towards these policies—likely primarily due to uncertainty and concerns about compliance costs.
- **Sustainability**: Firms are in general, open to investing in sustainable measures—in particular, sustainable technological improvements. Under the Singapore Green Plan 2030,[44] firms can get support to transform and decarbonise. Targeted incentives such as the Resource Efficiency Grant for Emissions[45] administered by EDB and the Energy Efficient Grant[46] administered by NEA are aimed at helping companies become more energy and carbon efficient.
- **Overseas expansion**: Businesses express willingness to expand, but are wary of high costs and complex procedures and documentation. The Double Tax Deduction for Internationalisation (DTDi) scheme[47] provides support for Singapore business to expand

[42] *Inside ASEAN: How the Bloc is Adapting to Global Trade Disruption*, Global Trade Alert, 2025, accessed from https://www.linkedin.com/pulse/inside-asean-how-bloc-adapting-global-trade-disruption-foppf/.
[43] This includes the SMEs Go Digital programme and the Productivity Solutions Grant, which aims to support automation and digitalisation efforts by firms to improve efficiency. From *SMEs Go Digital,* Infocomm Media Development Authority Singapore, accessed from https://www.imda.gov.sg/how-we-can-help/smes-go-digital; and *Productivity Solutions Grant*, Enterprise Singapore, accessed from https://www.enterprisesg.gov.sg/financial-support/productivity-solutions-grant.
[44] *Green Economy*, Singapore Green Plan 2030, accessed from https://www.greenplan.gov.sg/key-focus-areas/green-economy/
[45] REG(E) provides support to manufacturing facilities and data centres to undertake eligible emissions reduction projects to sustain competitiveness in a low-carbon future. From Incentives and Schemes: Resource Efficiency Grant for Emissions (REG[E]), Singapore Economic Development Board (EDB), accessed from https://www.edb.gov.sg/en/grants/incentives-and-schemes.html.
[46] EEG supports firms in adoption of sustainable energy and energy efficient equipment. From *Energy Efficient Grant*, National Environment Agency, accessed from https://www.nea.gov.sg/programmes-grants/grants-and-awards/energy-efficiency-grant.
[47] DTDi was enhanced a number of times to cover additional expenditure incurred, such as virtual trade fairs and e-commerce campaigns. Double Tax Deduction for Internationalisation scheme. From

overseas by providing double tax deduction on qualifying expenses and investment development activities overseas.

While existing policies have made an impact, firms continue to look for greater support to address various pain points. Financial concerns remain prominent for firms in Singapore and all across the region, alongside difficulties in navigating regulations, certifications, procedures and documentation. From these indications, some of the ways to help firms may include:

- Clarity and guidance for regulations, procedures, and documentation from government agencies and trade associations and chambers (TACs).
- More hands-on institutional support beyond current grants, incentives and corporate income tax rebate and tax exemption schemes[48]
- Reforms to local and regional systems such as strengthened regional frameworks, greater collaboration, reductions of non-tariff measures in the region

Firms in Singapore generally face similar baseline challenges as their regional counterparts, but are unique in their characteristics and therefore their needs. The nature of Singapore's strengths and limitations lends itself to the general characteristics of firms: firms in Singapore tend to be capital-intensive, technology-driven, and with significantly higher proportion of foreign ownership than in other ASEAN countries, therefore driving firms' needs towards accessibility and streamlined processes and regulations.

These distinctive characteristics—both in firm structure and national strategy—mean that Singapore's policy solutions must be just as calibrated. As Singapore-based firms adapt to the shifting regional terrain, policies on national as well as regional levels will need to follow suit.

Enterprise Singapore, accessed from https://www.enterprisesg.gov.sg/financial-support/double-tax-deduction-for-internationalisation.

[48] Corporate income tax (CIT) in Singapore stands at a flat rate of 17%, but the CIT rebate offers a 50% rebate, as well as a CIT Rebate Cash Grant, up to $40,000 (as of 2024). In addition to CIT rebates, the tax exemption scheme offers tax exemption of up to $125,000 (as of 2021). However, firms are required to apply for CIT rebates and tax exemption schemes on their own, and may not meet specific criteria for the schemes. From *Corporate Income Tax Rate, Rebates & Tax Exemption Schemes*, Inland Revenue Authority of Singapore, accessed from https://www.iras.gov.sg/taxes/corporate-income-tax/basics-of-corporate-income-tax/corporate-income-tax-rate-rebates-and-tax-exemption-schemes.

Appendix

All the underlying data referenced throughout this report are compiled here.

Table 1.2: Distribution of Firm Size (Number of Full-Time Employees) by Country

No. of full time employees	SG	KH	ID	LA	MY	PH	VN
10 or less people	23.81%	21.76%	46.20%	11.84%	23.36%	22.73%	8.47%
11-50	24.76%	28.34%	25.80%	48.03%	34.94%	40.34%	32.28%
51-100	16.19%	8.58%	16.00%	23.03%	16.02%	7.39%	15.34%
101-200	11.43%	4.79%	7.80%	6.58%	12.55%	10.80%	17.20%
201-300	3.81%	3.19%	1.40%	2.63%	4.05%	3.98%	9.26%
301-500	4.76%	7.39%	2.20%	3.95%	4.44%	3.41%	7.41%
501-1000	4.76%	11.78%	0.20%	2.63%	1.35%	2.27%	5.56%
Above 1,000	10.48%	14.17%	0.40%	1.32%	2.90%	9.09%	4.50%

Table 1.2 corresponds to Figure 1.1 in the report.

Table 1.3: Distribution of Firm Sectors by Country

Response	SG	KH	ID	LA	MY	PH	VN
Primary sector (e.g., agriculture, fisheries, forestry, mining, petroleum)	2.97%	0.00%	0.00%	9.87%	1.93%	0.00%	11.26%
Secondary sector (manufacturing)	59.41%	100.00%	100.00%	74.34%	94.02%	64.20%	46.65%
Tertiary sector (services)	26.73%	0.00%	0.00%	14.47%	3.86%	35.80%	39.68%
Quaternary sector (e.g. research/media/consulting)	10.89%	0.00%	0.00%	1.32%	0.19%	0.00%	

Table 1.3 corresponds to Figure 1.2 in the report.

Table 1.4: Categories* of Manufacturing Activities Of Respondent Firms

Manufacturing Activity	SG	KH	ID	LA	MY	PH	VN
Capital-intensive	48.84%	6.99%	3.80%	8.77%	33.78%	17.05%	24.26%
Labour-intensive	13.95%	70.86%	81.60%	59.65%	38.61%	42.05%	30.77%
Resource-based	13.95%	21.36%	11.80%	28.95%	25.10%	9.66%	38.46%
Other	23.26%	0.80%	2.80%	2.63%	2.51%	31.25%	6.51%

Table 1.4 corresponds to Figure 1.3 in the report.

Categories of manufacturing activity:

- ***Capital-intensive manufacturing**: e.g., electronics, pharmaceuticals, technology hardware, capital goods*
- ***Labour-intensive manufacturing**: e.g., food processing, home furnishings, apparel*
- ***Resource-based manufacturing**: e.g., chemicals, construction materials, wood and paper products*
- ***Other types of manufacturing**: activities not falling cleanly into the above categories*

Table 1.4.1: Manufacturing Activities of Respondent Firms

Manufacturing Activity	SG	KH	ID	LA	MY	PH	VN
Automobiles & Components	2.33%	0.20%	0.00%	0.00%	2.12%	1.14%	1.18%
Capital Goods (Machinery & Equipment)	19.77%	4.59%	1.80%	1.75%	11.58%	6.82%	13.02%
Chemicals & Fertilizers	12.79%	6.59%	1.20%	7.89%	10.62%	4.55%	17.16%
Construction Materials	0.00%	12.18%	9.40%	11.40%	8.30%	2.27%	13.02%
Containers, Packaging & Paper Products	1.16%	2.59%	1.20%	9.65%	5.98%	2.84%	7.69%
Electronics & Electrical Equipment	4.65%	0.00%	0.00%	1.75%	6.37%	0.57%	1.18%
Food, Beverage & Tobacco	12.79%	20.56%	45.60%	24.56%	27.22%	27.84%	7.10%
Home Furnishings & Fixtures	1.16%	7.78%	18.00%	11.40%	3.86%	7.39%	5.33%
Other	23.26%	0.80%	2.80%	2.63%	2.51%	31.25%	6.51%
Pharmaceuticals & Biotechnology	13.95%	1.20%	2.00%	4.39%	7.34%	7.95%	1.18%
Technology Hardware & Electronics	8.14%	1.00%	0.00%	0.88%	6.37%	0.57%	7.69%
Textiles, Apparel & Luxury Goods	0.00%	42.51%	18.00%	23.68%	7.53%	6.82%	18.34%
Wood, Paper & Furniture	0.00%	0.00%	0.00%	0.00%	0.19%	0.00%	0.59%

Table 1.4.1 corresponds to Figure 1.3 in the report.

Table 1.5: Percentage of Publicly Listed Firms

Response	SG	KH	ID	LA	MY	PH	VN
Yes	37.40%	30.20%	8.02%	1.97%	20.46%	6.29%	10.85%
No	62.60%	69.80%	91.98%	98.03%	79.54%	93.71%	89.15%

Table 1.5 corresponds to Figure 1.4 in the report.

Table 1.6: Percentage of Foreign-Owned Firms

Response	SG	KH	ID	LA	MY	PH	VN
Yes	69.67%	38.92%	1.00%	18.42%	18.15%	24.43%	29.63%
No	30.33%	61.08%	99.00%	81.58%	81.85%	75.57%	70.37%

Table 1.6 corresponds to Figure 1.5 in the report.

Table 1.7: Percentage of Foreign Ownership Shares in Respondent Firms

Response	SG	KH	ID	LA	MY	PH	VN
1%-9%	3.85%	9.38%	25.00%	10.71%	6.38%	20.93%	1.79%
10% - 49%	6.41%	10.42%	0.00%	7.14%	11.70%	34.88%	8.04%
50%-99%	23.08%	36.98%	75.00%	50.00%	26.60%	20.93%	16.96%
100%	66.67%	43.23%	0.00%	32.14%	55.32%	23.26%	73.21%

Table 1.7 corresponds to Figure 1.6 in the report.

Table 1.8: Percentage of Respondent Firms with Foreign Subsidiaries

Response	SG	KH	ID	LA	MY	PH	VN
Yes	66.04%	22.95%	0.40%	9.87%	9.46%	11.93%	10.32%
No	33.96%	77.05%	99.60%	90.13%	90.54%	88.07%	89.68%

Table 1.8 corresponds to Figure 1.7 in the report.

Table 1.9: Percentage Breakdown of Location of Foreign Subsidiaries

Response	SG	KH	ID	LA	MY	PH	VN
ASEAN countries	34.09%	23.19%	100.00%	47.06%	51.43%	31.11%	38.18%
China	23.30%	55.80%	0.00%	23.53%	15.71%	20.00%	21.82%
Other Non-ASEAN Countries in Asia	20.45%	10.14%	0.00%	29.41%	10.00%	20.00%	25.45%
Countries outside of Asia	22.16%	10.87%	0.00%	0.00%	22.86%	28.89%	14.55%

Table 1.9 corresponds to Figure 1.8 in the report.

Sample Information: Other information tables

Table 1.10: Founding Year of Companies in Each Country

Year Range	SG	KH	ID	LA	MY	PH	VN
Before 1950	24.80%	0.00%	0.20%	0.00%	3.30%	6.30%	0.80%
1950–1979	17.10%	0.00%	2.60%	2.00%	7.50%	8.00%	3.40%
1980–1989	8.60%	1.40%	6.20%	3.90%	10.40%	10.30%	3.20%
1990–1999	17.10%	6.90%	11.40%	23.70%	22.40%	12.60%	11.10%
2000–2009	10.50%	22.20%	20.20%	21.10%	19.90%	18.90%	41.30%
2010–2014	2.90%	23.80%	16.00%	17.10%	15.80%	13.70%	22.20%
2015–2020	12.40%	40.80%	37.40%	26.30%	17.60%	24.60%	16.90%
2021–2025	6.70%	4.80%	6.00%	5.90%	3.10%	5.70%	1.10%

Table 1.11: Distribution of Female Managers in Firms

Response	SG	KH	ID	LA	MY	PH	VN
Less than 10%	13.54%	17.29%	37.42%	6.52%	39.76%	9.82%	21.60%
10-25%	17.71%	16.49%	19.63%	19.57%	22.32%	20.25%	22.40%
25-49%	46.88%	16.49%	11.66%	28.26%	19.27%	23.31%	21.60%
50% or more	21.88%	49.73%	31.29%	45.65%	18.65%	46.63%	34.40%

Table 1.12: Distribution of Firm Sectors by Country

Response	SG	KH	ID	LA	MY	PH	VN
Primary sector (e.g., agriculture, fisheries, forestry, mining, petroleum)	2.97%	0.00%	0.00%	9.87%	1.93%	0.00%	11.26%
Secondary sector (manufacturing)	59.41%	100.00%	100.00%	74.34%	94.02%	64.20%	46.65%
Tertiary sector (services)	26.73%	0.00%	0.00%	14.47%	3.86%	35.80%	39.68%
Quaternary sector (e.g. research/media/consulting)	10.89%	0.00%	0.00%	1.32%	0.19%	0.00%	2.41%

Tables for Automation and Digitalisation Section

Table 2.1: Percentage of Firms that have Automated Business Processes in the Past 3 Years

Response	SG	KH	ID	LA	MY	PH	VN
0%	13.16%	14.08%	36.19%	11.18%	9.65%	17.24%	20.11%
1%-10%	42.11%	13.88%	26.98%	17.11%	21.24%	28.97%	24.93%
11%-25%	27.63%	15.69%	8.78%	27.63%	17.37%	24.83%	26.06%
26%-50%	14.47%	25.75%	7.49%	22.37%	29.92%	17.93%	18.13%
51%-75%	2.63%	21.33%	3.64%	14.47%	15.83%	8.28%	9.35%
75%-99%	0.00%	8.65%	3.85%	6.58%	4.63%	2.76%	1.13%
100%	0.00%	0.60%	13.06%	0.66%	1.35%	0.00%	0.28%

Table 2.1 corresponds to Figure 2.1 in the report.

Table 2.2: Types of Business Processes that Firms have Automated

Response	SG	KH	ID	LA	MY	PH	VN
Digitalisation of production or services (e.g., tablet computers/smartphone apps to take customer orders)	55.00%	48.16%	37.16%	67.06%	47.02%	34.27%	50.31%
Industrial robots in production, distribution, or delivery	21.00%	21.94%	11.20%	18.82%	18.81%	6.54%	13.35%
None	0.00%	14.76%	28.42%	5.88%	3.18%	28.97%	18.32%
Artificial intelligence or machine learning.	19.00%	11.84%	17.21%	4.12%	23.97%	11.84%	8.39%
Others (please state):	5.00%	3.30%	6.01%	4.12%	7.02%	18.38%	9.63%

Table 2.2 corresponds to Figure 2.2 in the report.

Table 2.2.1: Firms' Perception of How Digitalisation and Automation have Improved their Firms' Productivity (measured by profit margin per worker)

Response	SG	KH	ID	LA	MY	PH	VN
Yes	27.63%	54.01%	39.62%	48.68%	64.98%	48.55%	50.84%
No effect	2.63%	8.96%	20.75%	3.29%	6.88%	0.00%	4.35%
Not yet, but we expect it to	63.16%	25.71%	26.42%	45.39%	21.05%	5.20%	27.09%
Not applicable	6.58%	11.32%	13.21%	2.63%	7.09%	46.24%	17.73%

Table 2.3: Distribution of Firms Intending to Automate Their Business Processes Over the Next Three Years

Response	SG	KH	ID	LA	MY	PH	VN
0%	5.41%	8.89%	15.81%	17.11%	8.11%	18.75%	12.78%
1%-10%	25.68%	13.94%	30.13%	22.37%	14.29%	17.05%	27.27%
11%-25%	37.84%	14.34%	12.82%	32.24%	16.80%	25.57%	25.28%
26%-50%	25.68%	23.23%	10.04%	9.87%	27.80%	23.86%	20.45%
51%-75%	5.41%	27.07%	4.91%	14.47%	20.46%	8.52%	11.08%
75%-99%	0.00%	11.72%	4.06%	3.29%	11.20%	6.25%	3.13%
100%	0.00%	0.81%	22.22%	0.66%	1.35%	0.00%	0.00%

Table 2.3 corresponds to Figure 2.3 in the report.

Table 2.4: Estimated Productivity Improvement from Automation

Response	SG	KH	ID	LA	MY	PH	VN
0%-2.49%	5.56%	12.23%	19.05%	4.05%	12.77%	1.96%	28.86%
2.5%-4.99%	27.78%	29.26%	27.89%	31.08%	23.36%	11.76%	36.91%
5%-7.49%	16.67%	33.19%	10.88%	25.68%	13.71%	23.53%	14.77%
7.5%-10%	33.33%	13.97%	28.57%	13.51%	10.90%	33.33%	7.38%
More than 10%	16.67%	11.35%	13.61%	25.68%	39.25%	29.41%	12.08%

Table 2.4 corresponds to Figure 2.4 in the report.

Table 2.5: Expected Effect of Automation on the Number of Employees in Their Firm Over the Next Three Years

Response	SG	KH	ID	LA	MY	PH	VN
Increase a lot	2.60%	3.61%	15.02%	4.70%	7.92%	2.88%	1.69%
Increase somewhat	27.27%	21.64%	32.40%	18.79%	28.38%	9.62%	22.54%
No effect	40.26%	42.08%	36.05%	46.98%	31.66%	19.23%	34.37%
Reduce somewhat	28.57%	29.66%	13.30%	29.53%	28.76%	68.27%	38.03%
Reduce a lot	1.30%	3.01%	3.22%	0.00%	3.28%	0.00%	3.38%

Table 2.5 corresponds to Figure 2.5 in the report.

Table 2.6: Types of Business Activities That Firms Engage in Online

Response	SG	KH	ID	LA	MY	PH	VN
Online purchasing of goods or services that are delivered offline	12.57%	22.82%	32.52%	8.82%	18.09%	14.31%	44.07%
Online sales of goods or services that are delivered offline	13.77%	11.20%	26.33%	16.12%	15.60%	13.90%	14.35%
Provision of online customer service	7.78%	7.88%	9.06%	7.56%	3.82%	5.59%	4.37%
My firm does not do business online	10.18%	17.43%	8.92%	19.14%	11.62%	14.31%	8.52%
Online advertising	14.97%	14.11%	4.60%	23.68%	18.09%	14.71%	6.24%
Shipment tracking	14.37%	9.44%	4.60%	9.57%	12.95%	11.58%	4.78%
Purchase of goods or services delivered online (e.g. digital goods, remote services)	14.37%	9.13%	10.36%	9.07%	14.11%	12.81%	9.98%
Sale of goods or services delivered online (e.g. digital goods, remote services)	10.18%	6.54%	3.02%	5.79%	5.31%	8.04%	5.82%
Others (please state):	1.80%	1.45%	0.58%	0.25%	0.41%	4.77%	1.87%

Table 2.6 corresponds to Figure 2.6 in the report.

Table 2.7: Percentage of Online Sales

Response	SG	KH	ID	LA	MY	PH	VN
1-24%	0.00%	30.04%	45.85%	56.41%	55.67%	38.39%	58.14%
25-49%	80.39%	27.38%	28.85%	21.37%	22.00%	12.50%	20.93%
50-74%	3.92%	35.74%	17.00%	10.26%	14.67%	8.93%	13.18%
75-99%	1.96%	5.70%	2.37%	7.69%	6.00%	26.79%	4.65%
100%	13.73%	1.14%	5.93%	4.27%	1.67%	13.39%	3.10%

Table 2.7 corresponds to Figure 2.7 in the report.

Table 2.8: Policies Relating to Online Business That Firms Have Encountered

Policy	Response	SG	KH	ID	LA	MY	PH	VN
Taxation of digital services	Yes	22.22%	19.18%	27.81%	86.18%	25.53%	39.04%	67.64%
	No	77.78%	80.82%	72.19%	13.82%	74.47%	60.96%	32.36%
Intellectual property laws	Yes	47.22%	31.55%	28.87%	88.82%	27.66%	51.37%	50.16%
	No	52.78%	72.16%	69.85%	11.18%	72.34%	47.95%	60.19%
Regulations on the collection, storage, and transfer of data, including data localisation requirements, algorithm design, and technical standards	Yes	56.94%	21.44%	23.78%	83.55%	26.31%	42.47%	49.84%
	No	43.06%	78.14%	74.10%	16.45%	73.69%	56.85%	60.52%
Other cybersecurity regulations	Yes	59.72%	20.00%	18.26%	78.95%	22.82%	40.41%	57.61%
	No	40.28%	78.76%	80.04%	21.05%	77.18%	58.90%	52.75%

Table 2.8 corresponds to Figure 2.8 in the report.

Table 2.9: Firms' Perception of Online Business Policies

Policy	Option	SG	KH	ID	LA	MY	PH	VN
Taxation of digital services	Benefit	13.33%	42.22%	63.08%	47.62%	46.21%	46.30%	47.83%
	Neither benefit nor harm	80.00%	43.33%	35.38%	42.86%	43.94%	40.74%	48.79%
	Harm	6.67%	14.44%	1.54%	9.52%	9.85%	12.96%	3.38%
Intellectual property laws	Benefit	58.06%	71.76%	56.62%	70.59%	76.76%	66.67%	43.24%
	Neither benefit nor harm	41.94%	22.90%	43.38%	11.76%	20.42%	30.67%	54.73%
	Harm	0.00%	5.34%	0.00%	17.65%	2.82%	2.67%	2.03%
Regulations on the collection, storage, and transfer of data, including data localisation requirements, algorithm design, and technical	Benefit	30.77%	74.04%	48.21%	68.00%	70.37%	69.35%	43.62%
	Neither benefit nor harm	58.97%	23.08%	51.79%	24.00%	25.19%	25.81%	52.35%
	Harm	10.26%	2.88%	0.00%	8.00%	4.44%	4.84%	4.03%

standards

Other cybersecurity regulations	Benefit	43.90%	77.08%	48.24%	75.00%	70.09%	65.52%	47.27%
	Neither benefit nor harm	53.66%	19.79%	51.76%	25.00%	26.50%	29.31%	49.09%
	Harm	2.44%	3.13%	0.00%	0.00%	3.42%	5.17%	3.64%

Table 2.9 corresponds to Figure 2.9 in the report.

Tables for Sustainability Section

Table 3.1: Perceived Positive Impact on Environment Under Different Scenarios

	Response	SG	KH	ID	LA	MY	PH	VN
Regulation Scenario	Strongly disagree	5.88%	0.00%	0.00%	0.00%	0.00%	2.27%	9.89%
	Disagree	11.76%	7.94%	1.71%	0.00%	7.94%	11.36%	3.30%
	Agree	58.82%	76.98%	93.16%	72.22%	76.98%	43.18%	56.04%
	Strongly agree	23.53%	15.08%	5.13%	27.78%	15.08%	43.18%	30.77%
	Response	**SG**	**KH**	**ID**	**LA**	**MY**	**PH**	**VN**
NGO Green List Scenario	Strongly disagree	10.53%	0.83%	0.00%	2.56%	2.36%	11.63%	15.29%
	Disagree	15.79%	2.50%	12.50%	12.82%	8.66%	2.33%	2.35%
	Agree	47.37%	75.83%	77.50%	64.10%	66.93%	51.16%	76.47%
	Strongly agree	26.32%	20.83%	10.00%	20.51%	22.05%	34.88%	5.88%
	Response	**SG**	**KH**	**ID**	**LA**	**MY**	**PH**	**VN**
Customer Demand Scenario	Strongly disagree	6.25%	0.00%	0.00%	0.00%	2.34%	6.98%	15.05%
	Disagree	18.75%	3.91%	6.90%	7.89%	11.72%	0.00%	3.23%
	Agree	62.50%	82.03%	82.76%	63.16%	65.63%	48.84%	53.76%
	Strongly agree	12.50%	14.06%	10.34%	28.95%	20.31%	44.19%	27.96%

Table 3.1 corresponds to Figure 3.1 in the report.

Table 3.2: Given this New Development, Please Tell Us the Maximum Percentage of Annual Operating Costs that Your Firm Would be Willing to Invest Towards Improving Your Environmental Performance?

	Response	SG	KH	ID	LA	MY	PH	VN
Government Announcement (Control) Scenario	0%	12.50%	4.07%	16.22%	2.56%	4.65%	9.76%	4.82%
	0.1% to 2.49%	37.50%	26.02%	40.54%	28.21%	24.81%	12.20%	32.53%
	2.5% to 4.9%	12.50%	12.20%	18.02%	20.51%	24.03%	19.51%	25.30%
	5% to 7.49%	12.50%	24.39%	7.21%	10.26%	17.05%	14.63%	16.87%
	7.5% to 9.9%	18.75%	8.13%	2.70%	7.69%	6.20%	9.76%	3.61%
	10% to 12.49%	0.00%	9.76%	7.21%	17.95%	8.53%	12.20%	10.84%
	12.5% to 14.9%	0.00%	1.63%	0.90%	0.00%	1.55%	0.00%	1.20%
	15% and over	6.25%	13.82%	7.21%	12.82%	13.18%	21.95%	4.82%

	Response	SG	KH	ID	LA	MY	PH	VN
Regulation Scenario	0%	11.76%	4.80%	22.88%	8.33%	6.06%	2.27%	4.40%
	0.1% to 2.49%	35.29%	25.60%	37.29%	30.56%	21.97%	20.45%	28.57%
	2.5% to 4.9%	17.65%	16.80%	12.71%	19.44%	24.24%	18.18%	25.27%
	5% to 7.49%	5.88%	20.80%	5.93%	16.67%	13.64%	15.91%	15.38%
	7.5% to 9.9%	11.76%	13.60%	1.69%	5.56%	6.06%	11.36%	9.89%
	10% to 12.49%	0.00%	9.60%	11.02%	5.56%	8.33%	4.55%	8.79%
	12.5% to 14.9%	0.00%	0.80%	0.85%	0.00%	1.52%	4.55%	0.00%
	15% and over	17.65%	8.00%	7.63%	13.89%	18.18%	22.73%	7.69%

	Response	SG	KH	ID	LA	MY	PH	N
NGO Green List Scenario	0%	11.11%	7.56%	10.92%	5.13%	4.72%	4.55%	1.19%
	0.1% to 2.49%	33.33%	19.33%	39.50%	20.51%	25.98%	11.36%	33.33%
	2.5% to 4.9%	22.22%	18.49%	14.29%	25.64%	20.47%	22.73%	15.48%
	5% to 7.49%	11.11%	26.89%	7.56%	12.82%	15.75%	13.64%	16.67%
	7.5% to 9.9%	5.56%	9.24%	5.88%	7.69%	9.45%	11.36%	11.90%
	10% to 12.49%	0.00%	9.24%	11.76%	7.69%	7.09%	18.18%	10.71%
	12.5% to 14.9%	5.56%	3.36%	0.84%	2.56%	3.15%	2.27%	5.95%
	15% and over	11.11%	5.88%	9.24%	17.95%	13.39%	15.91%	4.76%

	Response	SG	KH	ID	LA	MY	PH	VN
Customer Demand Scenario	0%	0.00%	2.36%	15.60%	2.63%	4.69%	2.38%	4.30%
	0.1% to 2.49%	33.33%	25.20%	34.86%	31.58%	31.25%	16.67%	33.33%
	2.5% to 4.9%	20.00%	11.81%	15.60%	26.32%	17.19%	14.29%	20.43%
	5% to 7.49%	13.33%	30.71%	5.50%	5.26%	13.28%	19.05%	15.05%
	7.5% to 9.9%	6.67%	11.81%	3.67%	13.16%	6.25%	2.38%	10.75%
	10% to 12.49%	6.67%	11.81%	11.93%	5.26%	7.03%	9.52%	7.53%
	12.5% to 14.9%	0.00%	0.79%	0.92%	2.63%	0.00%	2.38%	2.15%
	15% and over	20.00%	5.51%	11.93%	13.16%	20.31%	33.33%	6.45%

Table 3.2 corresponds to Figure 3.2 in the report.

Table 3.3: Percentage of Firms Ranking the Below Sustainable Choices As Most Likely Investment Choices to Improve Their Firms' Environmental Quality (6 = most likely)

	Response	Rank	SG	KH	ID	LA	MY	PH	VN
Government Announcement (Control) Scenario	Purchase cleaner production technology	6	46.67%	28.10%	56.60%	8.33%	21.54%	12.82%	38.64%
		5	6.67%	20.66%	27.36%	13.89%	13.08%	22.50%	18.18%
		4	33.33%	17.36%	3.77%	25.00%	16.92%	18.92%	14.77%
		3	6.67%	16.53%	5.66%	22.22%	36.92%	19.44%	13.64%
		2	0.00%	17.36%	6.60%	27.78%	11.54%	17.14%	14.77%
		1	6.67%	0.00%	0.00%	2.78%	0.00%	3.85%	0.00%
	Improve waste and/or wastewater treatment	6	6.67%	19.83%	27.36%	38.89%	19.23%	20.51%	30.68%
		5	40.00%	21.49%	49.06%	2.78%	15.38%	12.50%	35.23%
		4	6.67%	20.66%	17.92%	33.33%	30.00%	21.62%	15.91%
		3	40.00%	23.97%	3.77%	19.44%	27.69%	30.56%	14.77%
		2	6.67%	14.05%	1.89%	5.56%	6.92%	8.57%	3.41%
		1	0.00%	0.00%	0.00%	0.00%	0.77%	3.85%	0.00%
	Train managers better on environmental protection	6	20.00%	18.18%	2.83%	33.33%	28.46%	28.21%	14.77%
		5	26.67%	16.53%	9.43%	38.89%	30.00%	22.50%	25.00%
		4	40.00%	27.27%	61.32%	11.11%	26.92%	27.03%	37.50%
		3	13.33%	26.45%	21.70%	8.33%	10.00%	16.67%	20.45%
		2	0.00%	11.57%	4.72%	8.33%	4.62%	2.86%	2.27%
		1	0.00%	0.00%	0.00%	0.00%	0.00%	3.85%	0.00%
	Train employees	6	20.00%	17.36%	9.43%	16.67%	23.85%	10.26%	6.82%
		5	26.67%	24.79%	9.43%	33.33%	36.15%	35.00%	18.18%

	better on environmental protection	4	20.00%	19.01%	9.43%	25.00%	18.46%	16.22%	23.86%
		3	33.33%	22.31%	54.72%	19.44%	16.15%	22.22%	37.50%
		2	0.00%	15.70%	15.09%	2.78%	4.62%	20.00%	13.64%
		1	0.00%	0.83%	1.89%	2.78%	0.77%	3.85%	2.22%
	Hire an environmental protection manager	6	0.00%	16.53%	3.77%	0.00%	5.38%	10.26%	7.95%
		5	0.00%	16.53%	4.72%	5.56%	5.38%	2.50%	3.41%
		4	0.00%	15.70%	7.55%	5.56%	7.69%	13.51%	7.95%
		3	6.67%	10.74%	12.26%	30.56%	8.46%	11.11%	13.64%
		2	93.33%	38.84%	70.75%	55.56%	71.54%	48.57%	64.77%
		1	0.00%	1.65%	0.94%	2.78%	1.54%	19.23%	2.22%
	Others (please state):	6	6.67%	0.00%	0.00%	2.78%	1.54%	17.95%	1.14%
		5	0.00%	0.00%	0.00%	5.56%	0.00%	5.00%	0.00%
		4	0.00%	0.00%	0.00%	0.00%	0.00%	2.70%	0.00%
		3	0.00%	0.00%	1.89%	0.00%	0.77%	0.00%	0.00%
		2	0.00%	2.48%	0.94%	0.00%	0.77%	2.86%	1.14%
		1	93.33%	97.52%	97.17%	91.67%	96.92%	65.38%	95.56%

	Response		SG	KH	ID	LA	MY	PH	VN
Regulation Scenario	Purchase cleaner production technology	6	29.41%	23.58%	49.14%	8.33%	19.70%	21.43%	32.95%
		5	11.76%	29.27%	30.17%	13.89%	0.76%	14.29%	23.86%
		4	17.65%	13.82%	4.31%	25.00%	24.63%	7.32%	11.36%
		3	35.29%	21.14%	7.76%	22.22%	29.85%	31.71%	18.18%
		2	5.88%	12.20%	8.62%	27.78%	14.29%	17.50%	13.64%
		1	0.00%	0.00%	0.00%	2.78%	0.00%	0.00%	0.00%
	Improve waste and/or wastewater treatment	6	17.65%	23.58%	26.72%	38.89%	23.48%	30.95%	37.50%
		5	29.41%	21.14%	42.24%	2.78%	23.08%	26.19%	30.68%
		4	23.53%	19.51%	16.38%	33.33%	20.15%	14.63%	13.64%
		3	17.65%	20.33%	6.90%	19.44%	25.37%	17.07%	12.50%
		2	11.76%	15.45%	7.76%	5.56%	7.14%	10.00%	5.68%
		1	0.00%	0.00%	0.00%	0.00%	0.76%	0.00%	0.00%
	Train managers better on	6	23.53%	13.01%	7.76%	33.33%	31.06%	19.05%	19.32%
		5	29.41%	23.58%	8.62%	38.89%	26.92%	26.19%	19.32%
		4	29.41%	32.52%	43.10%	11.11%	28.36%	34.15%	46.59%

	environmental protection	3	11.76%	18.70%	32.76%	8.33%	10.45%	12.20%	12.50%
		2	5.88%	10.57%	6.90%	8.33%	3.17%	5.00%	2.27%
		1	0.00%	1.63%	0.86%	0.00%	0.00%	0.00%	0.00%
	Train employees better on environmental protection	6	11.76%	21.95%	12.07%	16.67%	21.97%	9.52%	6.82%
		5	29.41%	17.89%	14.66%	33.33%	33.85%	28.57%	22.73%
		4	17.65%	20.33%	18.10%	25.00%	19.40%	26.83%	19.32%
		3	29.41%	23.58%	43.10%	19.44%	21.64%	26.83%	45.45%
		2	11.76%	16.26%	9.48%	2.78%	3.17%	7.50%	5.68%
		1	0.00%	0.00%	2.59%	2.78%	0.00%	4.17%	0.00%
	Hire an environmental protection manager	6	0.00%	17.89%	3.45%	0.00%	3.03%	11.90%	3.41%
		5	0.00%	8.13%	3.45%	5.56%	4.62%	4.76%	3.41%
		4	11.76%	13.82%	15.52%	5.56%	7.46%	14.63%	9.09%
		3	5.88%	16.26%	8.62%	30.56%	12.69%	7.32%	11.36%
		2	64.71%	43.90%	63.79%	55.56%	71.43%	55.00%	72.73%
		1	17.65%	0.00%	5.17%	2.78%	0.00%	12.50%	0.00%
	Others (please state):	6	17.65%	0.00%	0.86%	2.78%	0.76%	7.14%	0.00%
		5	0.00%	0.00%	0.86%	5.56%	0.00%	0.00%	0.00%
		4	0.00%	0.00%	2.59%	0.00%	0.00%	2.44%	0.00%
		3	0.00%	0.00%	0.86%	0.00%	0.00%	4.88%	0.00%
		2	0.00%	1.63%	3.45%	0.00%	0.79%	5.00%	0.00%
		1	82.35%	98.37%	91.38%	91.67%	99.24%	83.33%	100.00%

	Response		SG	KH	ID	LA	MY	PH	VN
NGO Green List Scenario	Purchase cleaner production technology	6	23.53%	27.43%	49.57%	20.51%	26.77%	18.60%	28.05%
		5	17.65%	32.74%	26.09%	15.38%	16.54%	7.14%	22.89%
		4	41.18%	8.85%	9.43%	20.51%	14.96%	23.26%	8.33%
		3	11.76%	17.70%	9.26%	25.64%	28.35%	30.95%	21.69%
		2	5.88%	13.27%	4.46%	17.95%	13.39%	15.00%	19.51%
		1	0.00%	0.00%	0.00%	0.00%	0.00%	3.70%	1.19%
	Improve waste and/or wastewater treatment	6	23.53%	17.70%	24.79%	25.64%	25.98%	9.30%	46.34%
		5	17.65%	23.01%	45.22%	20.51%	20.47%	16.67%	19.28%
		4	11.76%	21.24%	17.92%	25.64%	21.26%	20.93%	16.67%

		3	41.18%	21.24%	3.70%	15.38%	22.05%	33.33%	15.66%
		2	5.88%	15.93%	1.79%	12.82%	10.24%	17.50%	3.66%
		1	0.00%	0.88%	0.00%	0.00%	0.00%	3.70%	0.00%
		6	47.06%	17.70%	3.42%	41.03%	27.56%	37.21%	17.07%
	Train managers better on environmental protection	5	11.76%	16.81%	11.30%	15.38%	23.62%	40.48%	37.35%
		4	29.41%	33.63%	41.51%	23.08%	37.01%	16.28%	35.71%
		3	11.76%	20.35%	36.11%	17.95%	9.45%	7.14%	9.64%
		2	0.00%	11.50%	11.61%	2.56%	2.36%	0.00%	1.22%
		1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		6	0.00%	23.89%	17.95%	10.26%	16.54%	23.26%	6.10%
	Train employees better on environmental protection	5	52.94%	17.70%	9.57%	43.59%	34.65%	35.71%	19.28%
		4	11.76%	21.24%	23.58%	12.82%	18.90%	27.91%	35.71%
		3	29.41%	23.89%	40.74%	23.08%	26.77%	11.90%	33.73%
		2	5.88%	13.27%	8.93%	10.26%	3.15%	2.50%	6.10%
		1	0.00%	0.00%	1.77%	0.00%	0.00%	0.00%	0.00%
	Hire an environmental protection manager	6	0.00%	13.27%	4.27%	2.56%	3.15%	4.65%	1.22%
		5	0.00%	9.73%	7.83%	5.13%	4.72%	0.00%	1.20%
		4	5.88%	15.04%	7.55%	15.38%	7.87%	9.30%	3.57%
		3	0.00%	15.04%	9.26%	17.95%	13.39%	11.90%	19.28%
		2	82.35%	46.02%	70.54%	53.85%	70.87%	60.00%	68.29%
		1	11.76%	0.88%	1.77%	5.13%	0.00%	18.52%	1.19%
	Others (please state):	6	5.88%	0.00%	0.00%	0.00%	0.00%	6.98%	1.22%
		5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		4	0.00%	0.00%	0.00%	2.56%	0.00%	2.33%	0.00%
		3	5.88%	1.77%	0.93%	0.00%	0.00%	4.76%	0.00%
		2	0.00%	0.00%	2.68%	2.56%	0.00%	5.00%	1.22%
		1	88.24%	98.23%	96.46%	94.87%	100.00%	74.07%	97.62%

	Response		SG	KH	ID	LA	MY	PH	VN
Customer Demand Scenario	Purchase cleaner production technology	6	7.14%	27.42%	52.29%	18.42%	23.44%	19.51%	32.18%
		5	14.29%	21.77%	22.94%	15.79%	9.38%	2.56%	19.54%
		4	0.00%	16.13%	7.34%	10.53%	23.44%	18.42%	14.94%
		3	71.43%	20.97%	9.17%	28.95%	32.81%	43.24%	18.39%

	2	7.14%	13.71%	6.42%	23.68%	10.94%	8.57%	14.94%
	1	0.00%	0.00%	1.83%	2.63%	0.00%	4.55%	0.00%
	6	14.29%	20.97%	19.27%	28.95%	14.84%	17.07%	39.08%
	5	7.14%	24.19%	45.87%	21.05%	22.66%	15.38%	33.33%
Improve waste and/or wastewater treatment	4	57.14%	16.94%	22.02%	34.21%	28.13%	31.58%	13.79%
	3	7.14%	21.77%	11.93%	13.16%	25.00%	24.32%	11.49%
	2	14.29%	16.13%	0.92%	2.63%	8.59%	8.57%	2.30%
	1	0.00%	0.00%	0.00%	0.00%	0.78%	0.00%	0.00%
	6	50.00%	14.52%	7.34%	36.84%	39.84%	29.27%	14.94%
Train managers better on environmental protection	5	28.57%	20.97%	15.60%	21.05%	26.56%	33.33%	27.59%
	4	21.43%	33.87%	44.04%	31.58%	24.22%	15.79%	39.08%
	3	0.00%	18.55%	23.85%	5.26%	8.59%	8.11%	18.39%
	2	0.00%	12.10%	8.26%	5.26%	0.78%	11.43%	0.00%
	1	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%
	6	14.29%	19.35%	17.43%	13.16%	18.75%	12.20%	11.49%
Train employees better on environmental protection	5	50.00%	25.00%	10.09%	34.21%	39.06%	43.59%	18.39%
	4	14.29%	19.35%	14.68%	18.42%	14.06%	26.32%	21.84%
	3	21.43%	19.35%	44.04%	26.32%	24.22%	13.51%	41.38%
	2	0.00%	16.13%	11.93%	5.26%	3.91%	5.71%	6.90%
	1	0.00%	0.81%	1.83%	2.63%	0.00%	0.00%	0.00%
	6	14.29%	17.74%	3.67%	2.63%	1.56%	14.63%	2.30%
Hire an environmental protection manager	5	0.00%	8.06%	5.50%	5.26%	2.34%	2.56%	1.15%
	4	7.14%	13.71%	11.93%	5.26%	10.16%	7.89%	10.34%
	3	0.00%	18.55%	8.26%	23.68%	9.38%	10.81%	10.34%
	2	71.43%	40.32%	69.72%	63.16%	75.00%	60.00%	75.86%
	1	7.14%	1.61%	0.92%	0.00%	1.56%	13.64%	0.00%
	6	0.00%	0.00%	0.00%	0.00%	1.56%	7.32%	0.00%
	5	0.00%	0.00%	0.00%	2.63%	0.00%	2.56%	0.00%
	4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Others (please state):	3	0.00%	0.81%	2.75%	2.63%	0.00%	0.00%	0.00%
	2	7.14%	1.61%	2.75%	0.00%	0.78%	5.71%	0.00%
	1	92.86%	97.58%	94.50%	94.74%	97.66%	81.82%	100.00 %

Table 3.3 corresponds to Figures 3.3a - 3.3d in the report.

"Others":

Government Announcement (Control) Scenario

- *5S (Japanese way of sustainability method)*
- *Clean Air Act-related investment; training and discipline of the people in the community*
- *CSR activities (coral & marine reserve)*
- *environmental protection (regenerate thermal oxidizer)*
- *Greening production activities ensuring environmental friendliness, investing in natural capital development, and actively preventing and treating pollution have been focused; Awareness of the role of green growth has been raised*
- *Improve efficiency in power usage*
- *In the company; resource conservation*
- *Invest in companies who are focused on environment sustainability*
- *Involvement and awareness of government agencies towards the kelulut [stingless bee] industry (i.e., honey industry)*

Regulation Scenario

- *Attend more conventions*
- *Circular Product Design*
- *Cleans the air in corporate environments*
- *collaboration with other entities on waste disposal (government & non-government)*
- *Composting*
- *CSR activities related to environment*
- *ECC/Bldg (eco-award) (construction of infrastructure); operations of electrical usage*
- *Eco-friendly Packaging & Raw Materials/Ingredients*
- *EPR Act*
- *Help from the government to comply with environmental policies*
- *hire a consultant (outsourcing)*
- *trading in beverages, clean food, and education*
- *monitoring and control ensuring the full implementation of these*
- *more affordable solar energy*
- *Most of the waste is reused and sold.*
- *own projects of the company (collection of plastic waste from customers in exchange of vouchers; then the company has established partnerships with NGOs and with another company that transformed plastic waste into eco-bricks*
- *strive to achieve environmental management certification according to ISO 14001:2015*
- *Coordinate and cooperate better with agencies and departments managing local environmental protection*
- *Selling more of our products*
- *Sustainability officer; paper reduction*
- *Technology to protect environment, i.e., waste to biogas technology*
- *Join associations related to environmental protection*
- *Invest in environmentally friendly production equipment*
- *invest in environmentally friendly products*

NGO Green List Scenario

- *A more eco-friendly packaging standards for online platforms; Donation of scrap fabric to be recycled or reused*
- *Accelerators to support net zero*
- *CSR for the environment*
- *Current environmental protection programs*
- *Stop working*

- *Energy Sourcing*
- *Future research what can the company do/integrate related to environment protection that is aligned in their business activities/model*
- *Guests are required to follow environmental-related policies as an insurance, guests will be charged if they did not comply*
- *Higher collaboration and learn best practices with other firms*
- *Implementation of Trainings*
- *Packaging non-negotiables (no plastics)*
- *Personal hygiene and CLAYGO*
- *Planting trees to reduce global warming.*
- *Purchase clean energies*
- *purchase cleaner/greener sustainable materials*
- *Use environmentally-friendly products*
- *Waste management*
- *Better disposal of computer and office equipment waste*

Customer Demand Scenario

- *Automation of business activities*
- *Buy additional measuring equipment to calculate energy usage levels to measure and reduce emissions*
- *Clearer direction for the country's enforcement; net zero code - initiative by the company (global initiative)*
- *collaboration among industry players*
- *Consumed advertisements to raise awareness*
- *Convince customers for less packaging material or more environmentally friendly packaging options.*
- *Cutting food loss in the food supply chain. Avoiding surplus; Processing of fresh produce; Maintaining logistics; Engage with farmers by promoting organic fertiliser; Support for regenerative agri.*
- *Eco-friendly packaging materials*
- *For-a-cause projects*
- *Hire Cleaning Service Company*
- *incinerators for burning waste (policy change to make it legal)*
- *Partner with brands (or import) environmentally friendly machines, so we can recommend these brands to our clients, to keep our portfolio green*
- *Proper Waste Disposal/Collection*
- *Secular economy*
- *Tree planting*
- *truthful regulatory environmental agencies*
- *Upcycling and recycling of waste materials.*

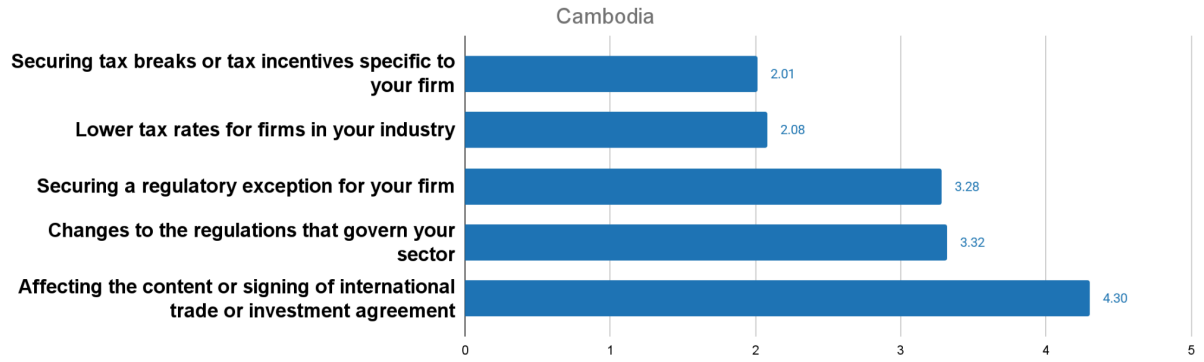
Regulation and Governance Tables

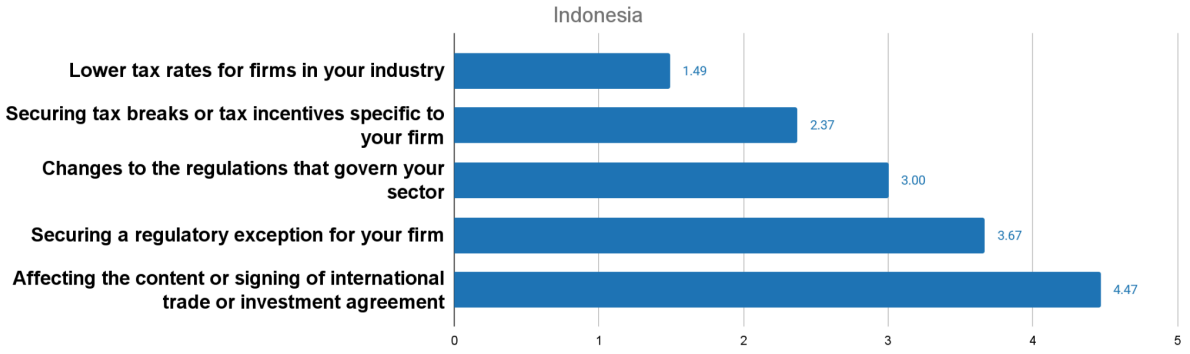
Table 4.1: Percentage of Firms in Ranking Each Business Issue Below From 1 to 5, With 1 Indicating the Most Important Issue for Their Firm

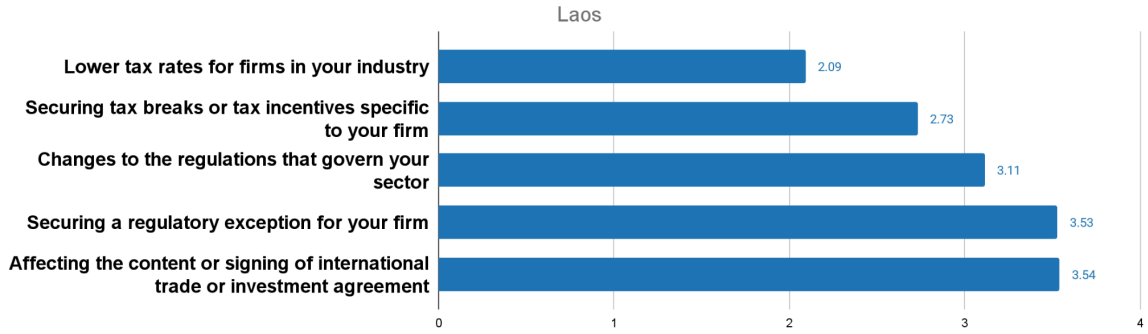
Response	Rank	SG	KH	ID	LA	MY	PH	VN
Lower tax rates for firms in your industry	1	38.81%	32.84%	70.21%	42.11%	47.09%	47.13%	54.49%
	2	26.87%	41.68%	18.01%	28.29%	32.56%	21.18%	34.49%
	3	17.91%	13.68%	5.34%	13.16%	11.46%	3.45%	7.25%
	4	11.94%	8.00%	3.23%	11.18%	6.40%	9.26%	1.33%
	5	4.48%	3.79%	2.77%	5.26%	2.51%	6.21%	2.32%
Securing tax breaks or tax incentives specific to your firm	1	17.91%	41.89%	10.39%	11.18%	28.49%	15.52%	33.33%
	2	40.30%	31.37%	54.97%	38.16%	43.80%	39.41%	50.14%
	3	19.40%	13.05%	25.06%	26.32%	14.76%	31.03%	11.88%
	4	13.43%	10.74%	6.70%	15.13%	9.30%	15.43%	10.67%
	5	8.96%	2.95%	3.00%	9.21%	3.68%	1.86%	1.74%
Changes to the regulations that govern your sector	1	32.84%	8.84%	11.32%	17.11%	12.21%	27.01%	6.96%
	2	13.43%	11.58%	13.63%	11.84%	9.88%	17.65%	9.86%
	3	41.79%	34.32%	48.72%	26.32%	44.66%	31.03%	66.09%
	4	10.45%	29.26%	17.32%	32.24%	25.97%	19.14%	13.07%
	5	1.49%	16.00%	9.24%	12.50%	7.35%	10.56%	2.90%
Securing a regulatory exception for your firm	1	2.99%	11.58%	5.31%	9.87%	6.40%	5.17%	2.90%
	2	11.94%	11.58%	8.78%	14.47%	8.72%	11.18%	2.32%
	3	5.97%	30.53%	14.15%	15.79%	21.55%	22.07%	9.28%
	4	50.75%	29.68%	57.74%	32.89%	50.00%	45.68%	61.60%
	5	28.36%	16.63%	14.09%	26.97%	13.35%	19.88%	18.55%
Affecting the content or signing of international trade or investment agreements	1	7.46%	4.84%	2.77%	19.74%	5.81%	5.17%	2.32%
	2	7.46%	3.79%	4.62%	7.24%	5.04%	10.59%	3.19%
	3	14.93%	8.42%	6.73%	18.42%	7.57%	12.41%	5.51%
	4	13.43%	22.32%	15.01%	8.55%	8.33%	10.49%	13.33%
	5	56.72%	60.63%	70.90%	46.05%	73.11%	61.49%	74.49%

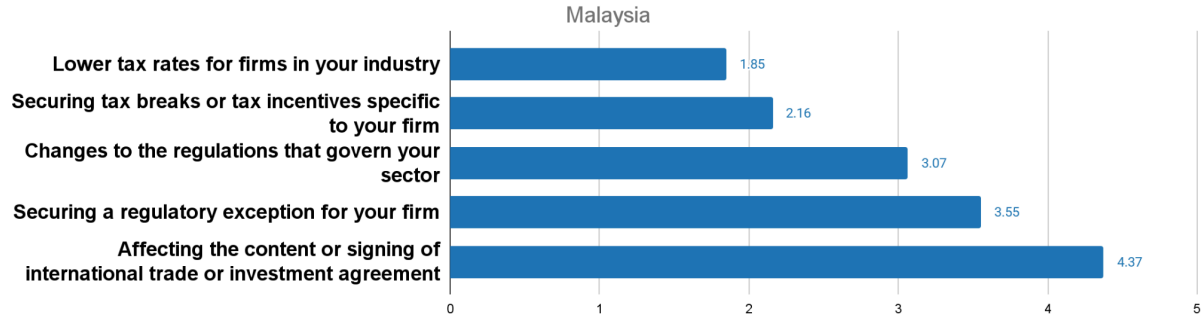
Table 4.1 corresponds to Figures 4.1 and 4.2 in the report.

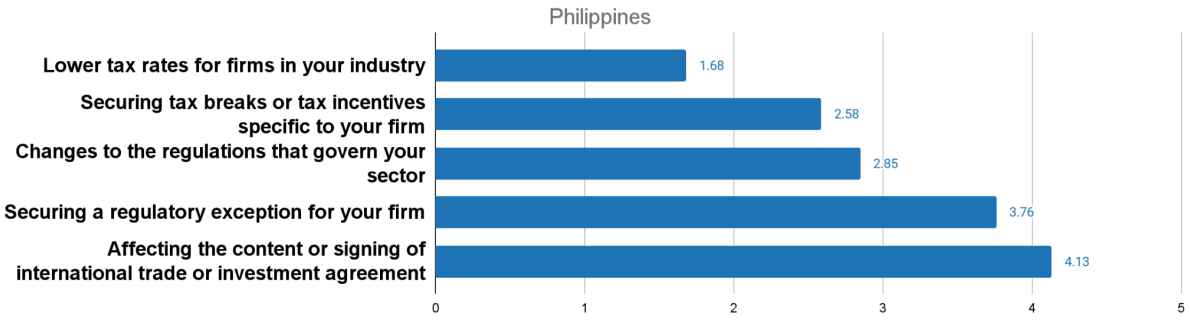
The following figures are an extended breakdown of Figures 4.1 and 4.2.











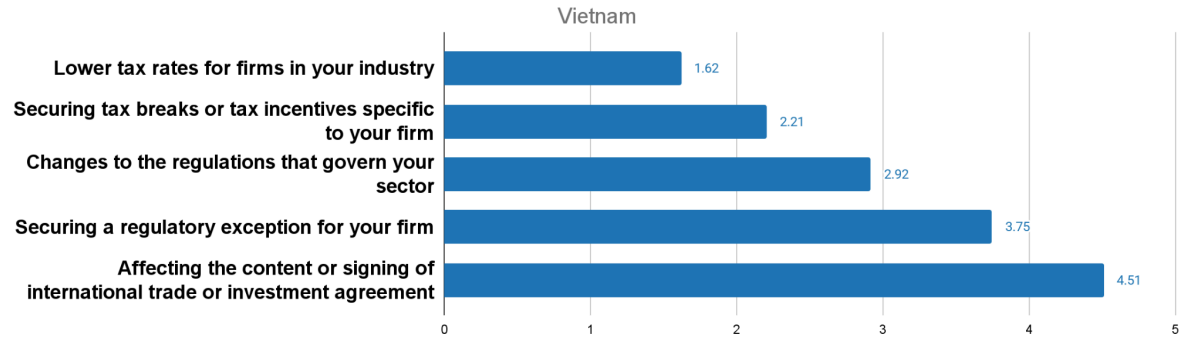


Table 4.2: Percentage of Efforts Allocated Towards Each Action

Response		SG	KH	ID	LA	MY	PH	VN
Cooperating with an industry association, chamber of commerce or other type of interest group organisation	1% - 25%	13.64%	38.69%	40.50%	22.12%	43.86%	23.71%	29.56%
	26% - 40%	31.82%	34.17%	28.93%	33.63%	23.98%	13.40%	24.53%
	41% - 60%	22.73%	18.09%	10.74%	27.43%	18.71%	24.74%	26.42%
	61% - 80%	13.64%	5.03%	16.53%	13.27%	5.85%	15.46%	11.32%
	81% - 100%	18.18%	4.02%	3.31%	3.54%	7.60%	22.68%	8.18%
Cooperating with other firms but NOT via an organisation	1% - 25%	64.29%	47.66%	61.98%	40.57%	52.07%	50.70%	35.58%
	26% - 40%	21.43%	40.65%	26.45%	45.28%	28.93%	28.17%	34.97%
	41% - 60%	0.00%	9.81%	8.26%	11.32%	11.57%	15.49%	20.86%
	61% - 80%	7.14%	1.87%	0.00%	1.89%	4.96%	4.23%	1.84%
	81% - 100%	7.14%	0.00%	3.31%	0.94%	2.48%	1.41%	6.75%
Your firm working alone, not in cooperation with other firms	1% - 25%	21.74%	14.15%	7.89%	38.38%	5.25%	29.46%	27.68%
	26% - 40%	13.04%	18.55%	13.16%	35.35%	6.23%	7.14%	19.77%
	41% - 60%	26.09%	18.24%	15.79%	21.21%	15.74%	19.64%	24.86%
	61% - 80%	13.04%	13.84%	6.14%	4.04%	15.41%	5.36%	6.21%
	81% - 100%	26.09%	35.22%	57.02%	1.01%	57.38%	38.39%	21.47%

Table 4.2 corresponds to Figures 4.3, 4.4, and 4.5 in the report.

Table 4.3: Percentage of Firms in Each Country That Have Secured a Rules of Origin Certificate Under Any Free Trade Agreement (FTA) In Order to Receive Lower Tariff Rates

Response	SG	KH	ID	LA	MY	PH	VN
Yes	29.73%	0.00%	47.83%	42.86%	38.73%	57.98%	28.45%
No	29.73%	50.23%	39.13%	28.57%	31.21%	37.82%	20.26%
I don't know	40.54%	49.77%	13.04%	28.57%	30.06%	4.20%	51.29%

Table 4.3 corresponds to Figure 4.10 in the report.

Table 4.3.1: The Type of Free Trade Agreements (FTAs) That Firms Applied Or Acquired a Rules of Origin Certificate For

Response	SG	KH	ID	LA	MY	PH	VN
ASEAN FTA	41.67%	27.69%	45.45%	50.00%	55.46%	39.06%	38.75%
ASEAN-plus FTAs[49]	36.11%	45.38%	45.45%	35.42%	31.93%	31.25%	28.75%
Non-ASEAN FTAs[50]	22.22%	26.92%	9.09%	14.58%	12.61%	29.69%	32.50%

Table 4.4: Reasons Why Firms Did Not Apply For a Rules of Origin Certificate in Any FTAs

Response	SG	KH	ID	LA	MY	PH	VN
There were no relevant FTAs in place for the goods we trade	35.00%	27.27%	12.50%	33.33%	23.95%	24.42%	38.36%
We didn't know how to apply for preferential tariff rates	10.00%	20.78%	12.50%	17.86%	14.37%	13.95%	6.85%
Our volumes of exports are too small	30.00%	25.97%	37.50%	10.71%	19.16%	12.79%	21.92%
Use of FTA provisions is not requested by client companies	15.00%	5.19%	18.75%	23.81%	19.76%	3.49%	17.81%
The procedures are complex and costly	5.00%	20.78%	18.75%	11.90%	10.78%	2.33%	6.85%
Others (please state)	5.00%	0.00%	0.00%	2.38%	11.98%	43.02%	8.22%

Table 4.4 corresponds to Figure 4.11 in the report.

[49] For example, ASEAN-China FTA, Regional Comprehensive Economic Partnership (RCEP) agreement.
[50] For example, EU-Singapore FTA, Comprehensive and Progressive Trans Pacific Partnership (CPTPP) agreement.

Table 4.5: Sources of Information That Were Valuable for Enabling Firms in Securing a Rules of Origin Certificate

Response	SG	KH	ID	LA	MY	PH	VN
Our firm didn't need any assistance	10.53%	4.61%	11.76%	17.44%	3.02%	2.67%	5.97%
Government agency	31.58%	25.81%	17.65%	22.09%	33.17%	24.00%	26.87%
Industry association or chamber of commerce	21.05%	29.03%	23.53%	23.26%	24.62%	24.00%	29.85%
Business associates such as suppliers and clients	15.79%	27.65%	35.29%	24.42%	27.64%	33.33%	22.39%
Law firm, consulting firm, or logistics firm that provides advice for a fee	18.42%	12.90%	11.76%	12.79%	8.04%	8.00%	11.94%
Others (please state)	2.63%	0.00%	0.00%	0.00%	3.52%	8.00%	2.99%

Table 4.5 corresponds to Figure 4.12 in the report.

Regional Outlook Section Tables

Table 5.1: Benefits of the ASEAN Economic Community as Perceived by Firms

Response	SG	KH	ID	LA	MY	PH	VN
Expanded markets for exports	16.67%	17.77%	20.59%	18.98%	22.49%	13.79%	26.36%
Increased digital connectivity	14.58%	16.15%	15.00%	17.14%	15.87%	8.05%	14.12%
Increased sources of inputs	8.33%	14.98%	12.35%	18.16%	14.29%	12.07%	18.54%
Increased overseas investment opportunities	20.83%	14.54%	16.18%	17.14%	12.43%	6.32%	8.16%
Increased sources of skilled labour	14.58%	14.24%	14.71%	12.04%	13.23%	12.07%	13.27%
Increased investment sources	4.17%	17.91%	17.65%	14.90%	12.17%	8.05%	9.86%
No benefit	18.75%	3.08%	3.53%	0.82%	7.67%	29.89%	9.35%
Other benefits (please state):	2.08%	1.32%	0.00%	0.82%	1.85%	9.77%	0.34%

Table 5.1 corresponds to Figure 5.1 in the report.

Table 5.2: Whether AEC can be reformed to better meet private sector needs

Response	SG	KH	ID	LA	MY	PH	VN
Yes	88.89%	42.86%	20.00%	50.00%	55.17%	87.50%	100.00%
No	11.11%	57.14%	80.00%	50.00%	44.83%	12.50%	0.00%

Table 5.2 corresponds to Figure 5.2 in the report.

Table 5.3: Top Issues for Firm Competitiveness in ASEAN Region by Country

Response	SG	KH	ID	LA	MY	PH	VN
Digital connectivity	15.46%	19.07%	19.93%	17.44%	18.29%	16.19%	15.67%
Reduction of non-tariff measures	10.20%	14.86%	17.42%	13.28%	12.51%	12.56%	19.37%
Managing my firm's connections to other firms	12.83%	12.82%	17.24%	10.40%	15.60%	12.69%	12.63%
Managing my firm's connections to government agencies and officials	11.84%	13.33%	11.96%	13.28%	13.14%	12.18%	15.00%
Mitigating the impact of climate change	11.18%	11.29%	12.88%	13.28%	13.73%	13.73%	8.55%
Supply chain resilience	10.53%	14.29%	10.84%	10.56%	9.07%	10.36%	11.21%
Harmonisation of customs procedures	7.89%	12.12%	9.18%	7.20%	5.89%	7.64%	8.83%
Improved Environment, Social, and Governance (ESG) compliance	8.55%	0.00%	0.00%	13.92%	11.77%	10.75%	8.45%

Table 5.3 corresponds to Figure 5.5 in the report.