Asia-Pacific Economic Cooperation

Enhancing MSME Data Interoperability in the APEC Region

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Prepared by:

Emmanuel A. San Andres, Glacer Niño A. Vasquez, Taiye Chen and Arthur Shin
Asia-Pacific Economic Cooperation Policy Support Unit
Asia-Pacific Economic Cooperation Secretariat
35 Heng Mui Keng Terrace
Singapore 119616
Tel: (65) 6891-9600 Fax: (65) 6891-9690
Email: psugroup@apec.org Website: www.apec.org

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EXECUTIVE SUMMARY

- **The lack of interoperable data impedes evidence-based regional policymaking for MSMEs in the APEC region**. Despite MSMEs being a crucial component of APEC's vision and major contributor to APEC economies, there is a notable absence of accurate and reliable cross-economy data for MSMEs that policymakers can depend on.

- Data interoperability ensures the comparability of concepts and measurements across different sets of data originating from various member economies. Comparability of concepts can be established through unified definitions, classifications, and categorisations between economies and over time. Comparable measurements are achieved through consistency in units of measurement and data formats.

- Data plays an integral role in all stages of the evidence-based policymaking process. Achieving data interoperability simultaneously strengthens this process and enhances the effectiveness of regional cooperation. More specifically, data interoperability improves issue identification and coordination; enhances monitoring and assessment of policies; facilitates cross-border learning and collaboration; and ensures transparency and accountability.

- **Current MSME data in APEC is not comparable, aggregable, or averageable.** While APEC economies collect data on MSMEs in a manner that provides rich data at the domestic level, this data is non-conducive to regional analysis. Discrepancies in definitions, estimations, and type of data collected prevent an accurate view of MSME issues and status across the region. Notable discrepancies exist between economies regarding the classification criteria of MSMEs and whether data can be disaggregated for micro, small, and medium enterprises individually.

- **MSME data sources in APEC point to opportunities for interoperability.** Twenty APEC economies conduct regular business or firm-level surveys to gather data on MSMEs, albeit the intervals at which the surveys are administered vary between economies. Additionally, 12 economies link data across various sources, including ad hoc surveys, administrative data, household surveys, trade documents, and census data. This provides a rich source of existing data from which to build interoperability.

- A majority of APEC economies collect data on the number of employees, MSME sales or revenue, and MSME merchandise trading activity, representing an opportunity for easier data interoperability across the region. However, data gaps still remain in MSME data for the APEC region. In particular, many economies lack MSME data relating to areas of internationalisation, inclusion (e.g., women, people with untapped economic potential), sustainability, and digitalisation.

Recommendations and Next Steps

- Improvements to data interoperability could be achieved without requiring changes to domestic regulations regarding MSMEs. Impacts on primary data collection or collation costs, if any, could be kept to a minimum, while adjustments to data processing, analysis, and reporting could be feasible implemented. In principle, changes should be based on existing data sources and processes.

- Steps toward achieving interoperability could be done in three steps:

Preparation

- *Data semantics and taxonomies*. APEC economies should develop unified statistical and operational definitions of how the primary data should be processed to be amenable for further processing and combination.
- *Data formats and questionnaires*. As data can be transmitted in various ways, coordinating data formats in advance will ensure a smoother transmission process and reporting mechanism.
- *Data sharing mechanisms and economy focal points*. Identifying and agreeing on procedural issues—such as who disseminates the questionnaires, when they are disseminated, and the time period of responses—will help facilitate the statistical work that occurs during the implementation phase

Implementation

- Economies and the APEC Secretariat would conduct the agreed processes and reporting mechanisms. In order to support implementation step of data interoperability, the roles between stakeholders and the process of communication and coordination should be clarified in advance.

Utilisation

- *Data review and validation*. To ensure the quality and robustness of submitted data, data should be reviewed, cleaned of inconsistencies, and double-checked with statistical focal points.
- *Monitoring, communication, and policymaking*. There should be an established process to ensure interoperable data is maximally utilised in SMEWG discussions and reports.
- *Dissemination and access*. Interoperable data can be disseminated as a statistical public good for policymakers, researchers, and stakeholders around the region. Possible avenues of dissemination include hosting the data in existing portals that store time-series data, such as the StatsAPEC portal.

1. INTRODUCTION AND PROJECT OVERVIEW

Micro, Small and Medium Sized Enterprises (MSMEs) are an important aspect of APEC's vision and work agenda. The APEC Putrajaya Vision 2040 states, "To ensure that the Asia Pacific region is resilient to shocks, crises, pandemics and other emergencies, we will foster quality growth that brings palpable benefits and greater health and wellbeing to all, including MSMEs, women and others with untapped economic potential." MSMEs are often the means and the end-beneficiary of APEC work on various areas like MSME internationalisation, financial inclusion, women's economic participation, sustainability, supply chain resilience, and others.

Accurate and reliable data are essential to enable evidence-based discussions and policy recommendations on MSME development. Indeed, almost all APEC economies collect data on MSMEs on a regular basis, with their data definitions, methodologies, and analysis being reflective of domestic MSME conceptualisations and priorities. However, while this provides rich data at the domestic level, the lack of MSME data compatibility and interoperability across economies prevents having an accurate view of MSME issues and status across the region. Each economy having its own MSME metrics and reporting mechanisms preclude comparability and aggregation to enable APEC-wide assessments of progress. While some metrics are robust to these reporting differences—such as the share of MSMEs in total enterprises—this robustness is limited once we start looking deeper into issues like MSME contribution to the economy, the share of employment, or export value when the reported values start varying widely across economies.

Lack of data comparability makes it difficult to effectively find best practices to highlight and emulate. This is especially problematic when MSME data needs to be cross-referenced with other demographic or economic data like sex, financial access, or cross-border trade activity. A lack of data interoperability and compatibility makes objectives like "increase share of women-owned MSMEs in APEC" and "increase MSME participation in APEC international trade" difficult to measure and track for the purposes of regional cooperation. Indeed, a significant number of the Small and Medium Enterprises Working Group's (SMEWG) indicators in its 2021-2024 Strategic Plan—such as "share of SME exporters who are women or other traditionally disadvantaged groups" or "value of exports by SMEs"—require interoperability and compatibility to attain reliable levels of accuracy.

Data is additionally crucial for communicating the value and impact of APEC. MSMEs account for the vast majority of businesses and the majority of employment in all APEC economies. High-quality and comparable statistics would better enable the communication of the contribution of APEC initiatives to this important group.

In 2023, the SMEWG and the APEC Policy Support Unit (PSU) initiated a study to identify challenges, find opportunities, and propose recommendations to improve MSME data compatibility and interoperability in the APEC region. In December 2023, a Request-for-Information (RFI) was conducted among SMEWG members to determine baseline facts about MSME data collection in the region (see Appendix 3 for the full questionnaire). This issues paper presents the findings, analysis, and recommendations of the study.

2. WHY DATA INTEROPERABILITY?

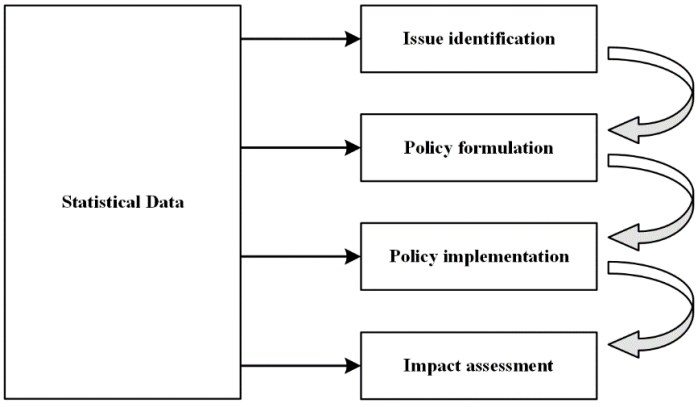
The success of international and regional frameworks of cooperation is underpinned by a robust foundation of statistical data interoperability. Indicators such as Gross Domestic Product (GDP), Purchasing Power Parity (PPP), and Balance of Payments (BOP) underscore the significance of interoperable statistical data in shaping international policy. Therefore, achieving data interoperability is essential for bolstering regional cooperation and ensuring evidence-based policymaking at the regional level. This chapter will highlight how statistical data interoperability can significantly improve the efficiency and effectiveness of regional cooperation and policymaking.

DATA INTEROPERABILITY: ENHANCING THE EFFICIENCY OF EVIDENCE-BASED REGIONAL POLICYMAKING

The Role of Data in Evidence-Based Policymaking

To comprehend the impact of data interoperability, it is imperative to understand the integral role of data in the evidence-based policymaking process. The United Nations Economic and Social Commission for Western Asia (ESCWA) conceptual framework for evidence-based policymaking illustrates how data is essential to all stages of the policymaking process, with data informing issue identification, policy formulation, policy implementation, and impact assessment (see Figure 2.1).[1] Therefore, it is crucial to recognise that enhancements to data quality–such as data interoperability–serve to strengthen the existing policymaking process by providing more informed insights to policymakers. Consequently, as data is intended to inform policy changes, improvements to data quality do not necessitate any policy or legislative changes beforehand.

Figure 2.1. Conceptual Framework for Evidence-Based Policymaking



Source: ESCWA (2013).

[1] United Nations Economic and Social Commission for Western Asia (ESCWA) (Ed.). (2013). Effective Use of Statistics in Evidence-based Policymaking - Conceptual Framework (E/ESCWA/SD/2013/Technical Paper.1). https://www.unescwa.org/publications/effective-use-statistics-evidence-based-policymaking-conceptual-framework

In the context of the policymaking process for MSMEs, statistical data remains highly relevant. According to a 2020 report by the Asian Development Bank, limited data availability has hindered MSME development in Asian economies by impeding issue identification and impact assessment.[2] The scarcity of data has led to challenges in assessing the current policy landscape, especially due to difficulties in summarising the business activities of MSMEs and identifying their needs.[3] Furthermore, despite Asian economies implementing several policies to enhance MSME access to finance–a critical issue identified under the SMEWG Strategic Plan–the effectiveness of these policies at a regional level remains uncertain. The 2017 MSME Finance Gap Report by the International Finance Corporation provides the most recent statistics for the entire Asia-Pacific region, revealing that the region accounts for 52% of the global finance gap for all MSMEs, amounting to USD 2.7 trillion, and the largest finance gap for women-owned MSMEs.[4] However, the absence of data post-2017 complicates the monitoring of changes and policy effects. Without comparable data, assessing whether the finance gap has improved or worsened, and which policies influenced such changes becomes untenable. These difficulties reiterate the critical importance of reliable statistical data in regional policymaking, particularly in the MSME context.[5]

Structural Inefficiencies of Non-Interoperable Data in Regional Policymaking

One characteristic of reliable cross-border statistical data is data interoperability. The objective of data interoperability is the comparability of concepts and measurements across different sets of data originating from various member economies.[6] Conceptual comparability aims for the uniformity of semantics, classifications, and categorisations between economies while maintaining consistency over time.[7] Meanwhile, measurement comparability seeks consistency in units of measurement and data formats.[8] By establishing interoperability, cross-border data can be immediately utilised in the regional policymaking process. However, if discrepancies in concepts and measurements exist, rendering the data non-interoperable, economies must undertake additional steps for data assessment (see Figure 2.2). Firstly, data users need to assess the conceptual comparability of the data, such as whether the data source's definitions,

[2] Asian Development Bank. (2020). Asia Small and Medium-Sized Enterprise Monitor 2020: Volume IV: Technical Note—Designing a Small and Medium-Sized Enterprise Development Index. https://dx.doi.org/10.22617/TCS200374-2

[3] Asian Development Bank. (2020). Asia Small and Medium-Sized Enterprise Monitor 2020: Volume IV: Technical Note—Designing a Small and Medium-Sized Enterprise Development Index. https://dx.doi.org/10.22617/TCS200374-2

[4] International Finance Corporation. (2017). MSME Finance gap: Assessment of The Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets. http://documents.worldbank.org/curated/en/653831510568517947/MSME-finance-gap-assessment-of-the-shortfalls-and-opportunities-in-financing-micro-small-and-medium-enterprises-in-emerging-markets?

[5] Asian Development Bank. (2020). Asia Small and Medium-Sized Enterprise Monitor 2020: Volume IV: Technical Note—Designing a Small and Medium-Sized Enterprise Development Index. https://dx.doi.org/10.22617/TCS200374-2

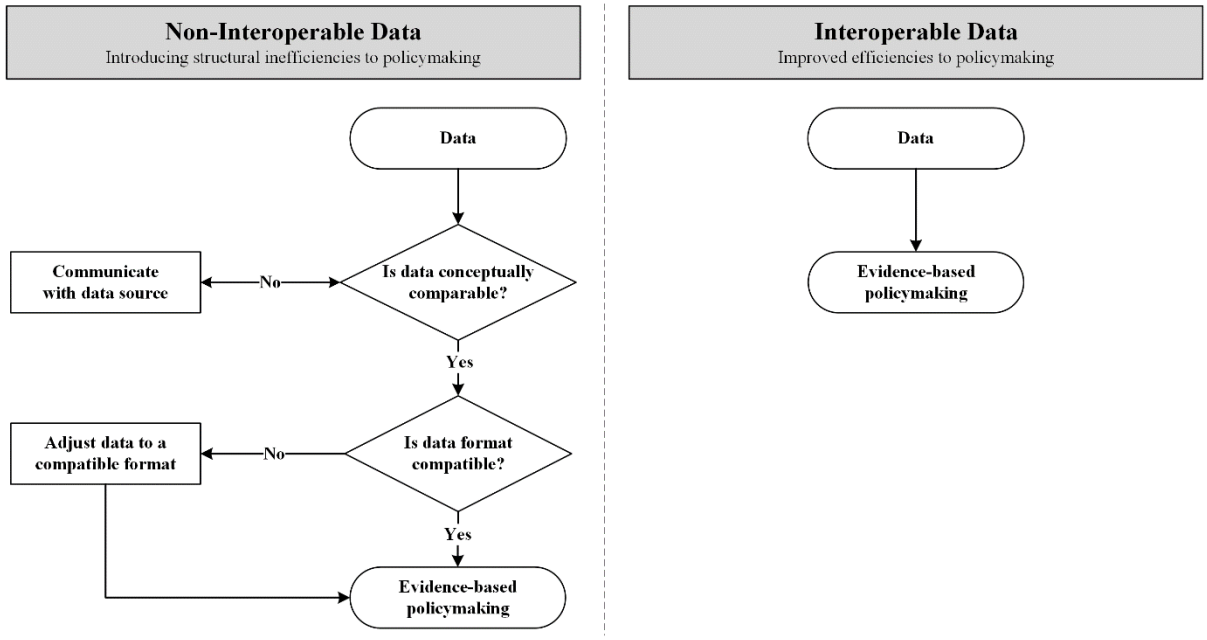
[6] International Harmonization and Statistical Comparability. (1998). Courrier Des Statistiques, 4(1998), 3–6. https://www.bnsp.insee.fr/ark:/12148/bc6p06z9b64.pdf; DeRock, D., & Mügge, D. (2023). The Statistical Trilemma: Built-in Limitations of International Economic Statistics. International Relations. https://doi.org/10.1177/00471178231201489

[7] International Harmonization and Statistical Comparability. (1998). Courrier Des Statistiques, 4(1998), 3–6. https://www.bnsp.insee.fr/ark:/12148/bc6p06z9b64.pdf; DeRock, D., & Mügge, D. (2023). The Statistical Trilemma: Built-in Limitations of International Economic Statistics. International Relations. https://doi.org/10.1177/00471178231201489

[8] International Harmonization and Statistical Comparability. (1998). Courrier Des Statistiques, 4(1998), 3–6. https://www.bnsp.insee.fr/ark:/12148/bc6p06z9b64.pdf; DeRock, D., & Mügge, D. (2023). The Statistical Trilemma: Built-in Limitations of International Economic Statistics. International Relations. https://doi.org/10.1177/00471178231201489

classifications, and categorisations are comparable with domestic concepts and whether they have remained consistent over the years. Secondly, data users need to assess the compatibility of the data format and, if necessary, transform the data to compatible formats. Finally, the data can be used for evidence-based policymaking.[9] Each of these steps is also susceptible to human error and delays, resulting in further inefficiencies in the policymaking process.

Figure 2.2. Data Assessment Process



Source: Authors.

The existence of non-interoperable data is ubiquitous and can arise from basic issues, such as conflicting date formats. For instance, statistical data that uses the "MM-DD-YYYY" format cannot be immediately merged with data using the "DD/MM/YY" format. To reconcile the data, the data user must perform the data assessment process.[10] *Prima facie*, this may seem to be a simple task, but when these non-interoperable date format issues accumulate, data users become more prone to human error and delays, which affects the reliability of data and its efficient use in the policymaking process. Another example of non-interoperable data is discrepancies in the format of trade documents, which several member economies have already committed to eliminating through a single-window system. Even when trade documents contain identical information, the differences in the format alone were a major source of delay and financial burden for trade. The cost of compliance for trade documents alone accounted for 3.5 to 7% of the value of goods, and up to 15% in the case of errors.[11] These examples

[9] Muñoz, J., Fraustro, S., Rioja, J. E., & UNECE High-Level Group on Modernisation of Official Statistics (HLG-MOS). (2023). Data Governance Framework for Statistical Interoperability (DAFI). ModernStats. https://unece.org/sites/default/files/2024-03/HLG2023%20DAFI%20Final_0.pdf

[10] Economic and Social Commission for Asia and the Pacific (ESCAP). (2012). Data Harmonization and Modelling Guide for Single Window Environment. Economic and Social Commission for Asia and the Pacific. https://www.unescap.org/resources/data-harmonization-and-modelling-guide-single-windows-environment

[11] Economic and Social Commission for Asia and the Pacific (ESCAP). (2012). Data Harmonization and Modelling Guide for Single Window Environment. Economic and Social Commission for Asia and the Pacific. https://www.unescap.org/resources/data-harmonization-and-modelling-guide-single-windows-environment

effectively highlight the prevalence of non-interoperable data and the inefficiencies posed by such data to all member economies.

Therefore, data interoperability seeks to eliminate these structural inefficiencies by streamlining the evidence-based policymaking process at a regional level, circumventing the data assessment process, and enabling data to be immediately relied upon for evidence-based policymaking. Ensuring coherence and consistency of understanding between economies in advance prevents misinterpretations and enables cross-border data utilisation with minimal or no prior communication.[12] This would not only improve the reliability of statistical data but also enhance the efficiency of regional policymaking.

DATA INTEROPERABILITY: ENHANCING THE EFFECTIVENESS OF REGIONAL COOPERATION

In addition to efficiency, data interoperability significantly enhances the effectiveness of regional cooperation by: (1) improving regional issue identification and coordination, (2) enhancing the monitoring and assessment of policies at a regional level, (3) facilitating cross-border learning and collaboration, and (4) ensuring transparency and accountability.

Improved Regional Issue Identification and Coordination

Interoperability enables the creation of statistical data that accurately reflects the state of MSMEs across the entire region and over time. This common ground for analysis minimises the discrepancies in understanding that may arise from relying on disparate data sources, better situating member economies to reach similar conclusions and assessments of the regional landscape for MSMEs, and the critical issues that need to be addressed at a regional level. The alignment of perspectives fosters genuine discussions based on a shared understanding of objectives, outcomes, and targets.[13] Consequently, this facilitates better coordination in providing an environment for MSMEs to thrive and advance the region's prosperity and equity.[14]

The role of statistical data interoperability in improving regional issue identification is exemplified by the System of National Accounts (SNA) and the challenges encountered in coordinating the development of the digital economy internationally. The SNA has facilitated the development of comparable macroeconomic indicators such as GDP and Balance of Payments, which have been essential for the coordination of many international organisations. These indicators significantly improved issue identification at an international level, particularly in determining which economies should be prioritised for development programmes and how resources should be allocated.[15] Moreover, the SNA has also been

[12] Muñoz, J., Fraustro, S., Rioja, J. E., & UNECE High-Level Group on Modernisation of Official Statistics (HLG-MOS). (2023). Data Governance Framework for Statistical Interoperability (DAFI). ModernStats. https://unece.org/sites/default/files/2024-03/HLG2023%20DAFI%20Final_0.pdf

[13] Mügge, D. (2019). International Economic Statistics: Biased arbiters in global affairs? Fudan Journal of the Humanities and Social Sciences, 13(1), 93–112. https://doi.org/10.1007/s40647-019-00255-5

[14] Parilla, J., Fleming, P., & Donahue, R. (2023, May 4). How Local Leaders Can Upgrade Their Regional Economic Dashboards for a New Era of Place-based Policymaking. Brookings. https://www.brookings.edu/Articles/How-Local-Leaders-Can-Upgrade-Their-Regional-Economic-Dashboards-For-A-New-Era-Of-Place-Based-Policymaking/

[15] System of National Accounts 2008. (2010). United Nations. https://doi.org/10.18356/4fa11624-en

instrumental in determining equitable contributions from each member.[16] In contrast, international discussions on the digital economy highlight how a lack of comparable statistics can hinder cooperation. In a 2020 UNCTAD report, experts and delegates stressed the importance of developing such statistics to aid in the effective identification of policy issues and foster fruitful negotiations at an international level.[17] The landmark role of the SNA and the concerns expressed during the digital economy negotiations emphasise how interoperable data is vital in improving the identification and coordination of regional issues.

Enhanced Monitoring and Assessment of Policies

Beyond facilitating issue identification, interoperable data significantly strengthens the impact assessment dimension of the evidence-based policymaking process. Interoperability eradicates barriers to international comparisons, thereby allowing the establishment of clearer goals and enhancing accuracy in measuring progress towards these objectives across economies. Comparable statistics have been instrumental in the impact assessment of various international programmes, such as the Sustainable Development Goals (SDG). For example, PPP has been used to establish international poverty lines to track global progress towards 'eradicating poverty' (SDG Goal 1).[18] Similarly, GDP per capita has served to evaluate the success of specific poverty alleviation initiatives.[19] Through the efficient and timely monitoring of policies, relevant actors–such as economies, international entities, or relevant working groups–can swiftly devise follow-up responses if deemed necessary, thereby enhancing the effectiveness of regional policies.[20] In the MSME context, the ASEAN SME Policy Index 2018 identified that the lack of comparable statistics to monitor progress has prevented ASEAN from "assessing the progress of their strategic action plans accurately, and to formulate new, evidence-based action plans in the future."[21] Therefore, the advantages conferred by interoperable data in enhancing the precision of impact assessment are irrefutable and reiterate their importance in the context of MSMEs to strengthen evidence-based policymaking at a regional level.

Facilitates Cross-Border Learning and Collaboration

Interoperable statistical data provides policymakers with a valuable benchmark, enabling them to assess the success of their policies relative to other economies.[22] These comparisons create opportunities for cross-border learning and collaboration by fostering interagency discussions

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[16] Organisation for Economic Co-operation and Development (OECD). (2002). Policy Uses of National Accounts: An OECD Perspective. Joint ECE/Eurostat/OECD Meeting on National Accounts. https://unece.org/fileadmin/DAM/stats/documents/ece/ces/ac.68/2002/3.e.pdf

[17] Report of the Intergovernmental Group of Experts on E-commerce and the Digital Economy on its Fourth Session (TD/B/EDE/4/4). (2020). United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/tdb_ede4d4_en.pdf

[18] International Comparison Program Annual Report. (2019). World Bank. https://pubdocs.worldbank.org/en/148641591895276884/pdf/ICP-Annual-Report-2019.pdf

[19] Organisation for Economic Co-operation and Development (OECD). (2002). Policy Uses of National Accounts: An OECD Perspective. Joint ECE/Eurostat/OECD Meeting on National Accounts. https://unece.org/fileadmin/DAM/stats/documents/ece/ces/ac.68/2002/3.e.pdf

[20] Guidelines on integrated economic statistics. (2013). In Studies in methods. Series F. https://doi.org/10.18356/c03e7c1a-en

[21] Organisation for Economic Co-operation and Development (OECD), & Asia, E. R. I. F. a. a. E. (2018). SME Policy Index: ASEAN 2018 Boosting Competitiveness and Inclusive Growth. OECD. https://asean.org/wp-content/uploads/2021/09/Report-ASEAN-SME-Policy-Index-2018.pdf

[22] Burkhauser, R. V., & Lillard, D. R. (2005). The Contribution and Potential of Data Harmonization for Cross-National Comparative Research. Journal of Comparative Policy Analysis, 7(4), 313–330. https://www.econstor.eu/handle/10419/18337

and expert debates, as policymakers seek insights from the experiences of other economies to refine domestic policies.[23] The positive impact of interoperable data on facilitating cross-border learning is evident from the role of GDP in the development of growth accounting–a framework that identifies the factors influencing economic growth.[24] This framework, created from the insights generated from comparable statistics, has significantly improved the forecasting and analytical abilities of economies and international organisations. Most notably, the World Bank and International Monetary Fund have utilised GDP along with other comparable statistics from BOP to help advise and coordinate global economic development.[25] Additionally, the ASEAN Secretariat emphasised the critical importance of comparable statistics in enabling ASEAN members to "get together and share data, good practices, [and] experiences".[26] These instances underscore the significance of interoperable data and its ability to facilitate cross-border learning and collaboration. With economies employing varying approaches to encourage the development of MSMEs, such collaborations will certainly yield valuable insights that can enhance the effectiveness of MSME policies for the entire region.

Ensures Transparency and Accountability

Establishing interoperable data provides economies with the critical advantage of ensuring transparency and accountability to their electorate and other member economies. If domestic statistics cannot be compared with those of similar economies, citizens cannot effectively evaluate their governments' performance. Comparable statistics and benchmarking provide citizens with a deeper understanding of policy decisions, their impact, and the rationale behind them.[27] This transparency improves the effectiveness of policymaking and empowers citizens to hold governments accountable.[28] Additionally, the ability to monitor the progress of economies towards shared goals offers reliable evidence and clarity of an economy's commitment to joint initiatives, thus fostering trust among member economies and encouraging further collaboration on other issue areas. With the renewed trust of the electorate and fellow member economies, interoperable data enhances the reliability and effectiveness of policies.

CONCLUSION

Data remains central to evidence-based policymaking both at a domestic and regional level. To enhance the efficiency and effectiveness of regional policies, especially those concerning

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[23] Mügge, D., & Linsi, L. (2020). The National Accounting Paradox: How Statistical Norms Corrode International Economic Data. European Journal of International Relations, 27(2), 403–427. https://doi.org/10.1177/1354066120936339

[24] Organisation for Economic Co-operation and Development (OECD). (2002). Policy Uses of National Accounts: An OECD Perspective. Joint ECE/Eurostat/OECD Meeting on National Accounts. https://unece.org/fileadmin/DAM/stats/documents/ece/ces/ac.68/2002/3.e.pdf

[25] Mügge, D. (2019). International Economic Statistics: Biased Arbiters in Global Affairs? Fudan Journal of the Humanities and Social Sciences, 13(1), 93–112. https://doi.org/10.1007/s40647-019-00255-5

[26] ASEAN Secretariat. (2019). ASEAN Strategic Action Plan for SME Development 2016-2025. https://asean.org/wp-content/uploads/2015/11/Final-SAP-SMED-2025-Update-in-2019.pdf and Sutanto, A., & Frederick De Guia, J. (Eds.). (n.d.). ASEAN Secretariat Views on the Formulation of National Strategies for the Development of Statistics in Southeast Asia. https://www.paris21.org/sites/default/files/2374.pdf

[27] Organisation for Economic Co-operation and Development (OECD) & ASEAN. (2021). Strengthening Evidence-Based MSME Policymaking in ASEAN. OECD. https://asean.org/wp-content/uploads/2021/09/Policy-Insight_Strengthening-evidence-based-MSME-policymaking-in-ASEAN.pdf

[28] Organisation for Economic Co-operation and Development (OECD) & ASEAN. (2021). Strengthening Evidence-Based MSME Policymaking in ASEAN. OECD. https://asean.org/wp-content/uploads/2021/09/Policy-Insight_Strengthening-evidence-based-MSME-policymaking-in-ASEAN.pdf

MSMEs, member economies must prioritise statistical data interoperability. Ensuring conceptual and measurement comparability significantly improves the efficiency of evidence-based policymaking by eliminating the need for data assessments, additional communication, and data adjustments, while reducing the risk of human error. Moreover, interoperable data is integral to effective regional cooperation as it improves regional issue identification, enhances impact assessment, facilitates cross-border learning, and ensures transparency and accountability. Pursuing statistical data interoperability is imperative for APEC to advance MSME policies, strengthen regional policymaking, and ultimately foster regional cooperation.

3. CURRENT STATUS OF MSME DATA IN APEC

This chapter discusses the current status of MSME data in the APEC region, with the view of identifying issues of comparability and amenability to rigorous analysis. Data for this section are taken from the responses of SMEWG members to the RFI process as well as secondary sources listed in Appendix 2. These secondary sources include official gazettes, published data, and other economy-specific sources.

MSMES IN THE MACROECONOMIC CONTEXT

Across APEC economies, MSMEs are identified based on various factors, including their workforce size, revenue, and assets. These standards may even differ depending on the industrial sector in which a business operates. APEC member economies thus use a combination of these factors and criteria to determine MSME classification. Moreover, different government agencies may establish their own definitions of MSMEs to aid various initiatives aimed at supporting such businesses.

Table 3.1. Summary of Classification Criteria for MSMEs

Economy	Number of Employees	Sales / Revenue	Assets / Capital	Sector / Industry	Effective Date of the Most Recent Official Definition
Australia	1	1			2008
Brunei Darussalam	1	1	1		2023
Canada	1				
Chile	1	1			2010
China	1	1	1	1	2011
Hong Kong, China	1			1	
Indonesia	1	1	1		2008
Japan	1		1	1	1999
Korea		1	1	1	2015
Malaysia	1	1		1	2014
Mexico	1	1		1	2009
New Zealand	1				
Papua New Guinea	1	1	1		2023
Peru		1			
The Philippines	1		1		2008
Russia	1	1		1	2007
Singapore	1	1			2011
Chinese Taipei	1		1		2020
Thailand	1	1		1	2020

United States	1	1		1	2017
Viet Nam	1	1	1		2018

In the diverse APEC region, the classification of businesses as MSMEs reveals a multitude of approaches. For 18 APEC economies, a majority, the number of employees serves as the main determinant for MSME classification (Table 3.1). However, employee counts are often not the single determinant of MSME status, as two-thirds of these economies rely on other criteria related to sales/revenue and/or assets/capital to define MSMEs. This multifaceted approach underscores the complexity of MSME categorisation within the region, where economic structures and priorities vary widely. Notably, nine out of the 21 APEC economies place significant emphasis on assets/capital in their classification standards, reflecting the importance of financial metrics in defining MSMEs. In contrast, the nuanced nature of MSME classification becomes apparent as eight out of the 21 APEC economies consider the sector or industry in which the business operates.

The most recent economic data unveils a robust landscape for MSMEs within the APEC region (Table 3.2). It is important to note that what constitutes an MSME in one economy may not align with another economy's definition, given the differing definitions among APEC members.

Table 3.2. Number and Share of MSMEs

Economy	No. of MSMEs	Share of Total Enterprises (%)	Year	No. of MSMEs	Share of Total Enterprises (%)	Year
Australia	2,584,978	99.8%	2022-23	2,204,387	99.8%	2017-18
Brunei Darussalam	6,411	97.6%	2022	5,876	97.2%	2017
Canada	1,346,868	99.8%	2023	1,280,764	99.8%	2018
Chile	1,168,049	77.5%	2022	944,905	98.6%	2017
China	52,000,000	98.4%	2022			
Hong Kong, China	362,068	98.5%	2023	338,113	98.3%	2018
Indonesia	65,465,497	100.0%%	2019	64,194,056	100.0%	2018
Japan	3,364,891	99.7%	2021	3,578,176	99.7%	2016
Korea	7,713,895	99.9%	2021	3,732,997	99.9%	2017
Malaysia	1,173,601	97.4%	2022	907,065	98.5%	2015
Mexico	4,789,510	99.8%	2018	4,170,755	99.7%	2017
New Zealand	587,406	97.1%	2023	518,856	97.0%	2018
Papua New Guinea				49,500	13.0%	2016
Peru	2,245,795	99.4%	2022	1,899,584	99.5%	2017
The Philippines	1,105,143	99.6%	2022	920,677	99.6%	2017
Russia	6,574,855	86.5%	2024	5,925,282	72.1%	2017
Singapore	299,900	99.0%	2022	254,400	99.0%	2017

Chinese Taipei	1,633,788	98.9%	2022	1,466,209	97.6%	2018
Thailand	3,187,378	99.5%	2022	3,077,822	99.8%	2018
United States	33,271,644	99.9%	2021	30,748,033	99.9%	2016
Viet Nam	709,198	98.7%	2021	507,860	98.1%	2017

Significantly, a large portion of this entrepreneurial activity is concentrated in key economies, with Indonesia leading at around 66 million reported MSMEs, followed closely by China with 52 million and the United States with 33 million. Conversely, smaller figures are observed in Brunei Darussalam and Papua New Guinea, which highlight the diverse economic landscapes and varying levels of MSME development across APEC member economies.

It is important to note, however, that the figures reported in Table 3.2 are not comparable, aggregable, or averageable due to differences in the way they are defined and estimated. While it may be tempting to sum the number of MSMEs across economies or to find the average share of MSMEs to total firms in the region, doing so is not conceptually proper or accurate due to the wide differences and discrepancies in the information contained in the underlying statistics.

One generalisable finding from Table 2 is that regardless of definition, MSMEs make up more than 90% of firms in APEC economies with the exception of Chile where this share is measured at 77.5%. This is an expected result since, by definition, there are many more MSMEs compared to large firms, and giving equal numerical weight to large firms and sole proprietorships is expected to yield this result.

Over the past five years, there has been a significant surge in MSME growth within APEC. China stands out with remarkable growth of around 30 million new MSMEs in just six years, demonstrating an impressive average annual growth rate of 15%. Similarly, Korea experienced significant growth, adding around 4 million MSMEs in just four years, averaging a growth rate of 20% per year. The United States, while showing slower growth in absolute numbers, still witnessed an increase of more than 2 million registered MSMEs over five years (approximately 2% growth per annum).

Furthermore, examining MSME density provides valuable insights into the entrepreneurial landscape and business environment of an economy. MSME density is calculated as the number of MSMEs per 1,000 people and serves as a gauge of the ease with which new businesses can establish themselves within a given market (Table 3.3).

Table 3.3. MSME Density (per 1,000 people)

Economy	MSME Density	Year	MSME Density	Year
Australia	97.0	2022-23	88.3	2017-18
Brunei Darussalam	13.6	2022	13.8	2017
Canada	31.1	2022	34.6	2018
Chile	59.6	2022	51.2	2017
China	36.8	2022		
Hong Kong, China	48.3	2023	45.2	2018

Indonesia	242.8	2019	239.8	2018
Japan	27.1	2021	28.2	2016
Korea	149.1	2021	72.5	2017
Malaysia	34.6	2022	30.0	2015
Mexico	38.6	2018	33.0	2018
New Zealand	114.6	2023	106.2	2018
Papua New Guinea			6.0	2016
Peru	66.0	2022	60.4	2017
The Philippines	9.6	2022	8.6	2017
Russia	45.0	2024	55.7	2017
Singapore	53.0	2022	46.6	2018
Chinese Taipei	70.2	2022	62.2	2018
Thailand	48.2	2022	46.2	2018
United States	101.1	2019	95.2	2016
Viet Nam	7.3	2021	5.4	2017

Note: MSME Density provides a gauge of dynamism of MSMEs in an economy. This metric is affected by market and cultural factors such as business and regulatory environment, entrepreneurial risk appetite, and demographics (i.e., age structure).

Several economies within the APEC region exhibit MSME densities exceeding 100 per 1,000 people, indicating a vibrant entrepreneurial ecosystem. Leading this cohort is Indonesia with a density of 242.8, followed by Korea at 149.1, New Zealand at 114.6, and the United States at 101.1. These figures reflect the conducive business environments available for MSMEs in these economies.

Conversely, some economies demonstrate lower MSME densities, highlighting potential areas for improvement in fostering entrepreneurship and registering businesses. The three economies with the lowest MSME densities include the Philippines at 9.6, Viet Nam at 7.3, and Papua New Guinea at 6.0, suggesting the need for targeted policies to enhance MSME development and encourage business expansion.

Analysing changes in MSME density over time provides further insights into the evolving entrepreneurial landscape within specific economies. For instance, Korea experienced a substantial increase in MSME density, with a rise of 76.6 MSMEs per 1,000 people over four years, equivalent to an average annual increase of 19.2. Similarly, China saw an increase of 21.0 MSMEs per 1,000 people over five years, translating to an average annual increase of 4.2. Other notable increases include New Zealand; Chile; and Chinese Taipei.

Table 3.4. Distribution of MSMEs by Size (% of total MSMEs)

Economy	Sole Proprietorships & Non-employing	Micro	Small	Medium	Large	Year
Australia	61.3	27.2	8.9	2.5		2022-23
Brunei Darussalam		44.2	41.4	14.5		2022
Canada			98.1	1.9		2022
Chile		76.6	20.5	2.9		2018
China						
Hong Kong, China						
Indonesia		16.4		83.6		2022
Japan		84.5		15.2		2021
Korea						2020
Malaysia		78.7	19.7	1.6		2022
Mexico		96.6	3.4			2019
New Zealand	72.6	18.0	7.5	1.9		2022
Papua New Guinea						
Peru		94.8	5.1	0.2		2022
The Philippines		90.5	8.7	0.4		2022
Russia		96.5	3.2	0.3		2024
Singapore		77.0	17.0	4.0	1.0	2022
Chinese Taipei						
Thailand		85.2	13.1	1.4		2022
United States	81.6	18.4				2020
Viet Nam		81.0	15.6	3.4		2021

In addition, disaggregating MSMEs by size is a common practice among economies aiming to tailor specific initiatives and support programs to enterprises of varying scales. Currently, fifteen APEC economies have established criteria to classify micro, small, and/or medium-sized enterprises, allowing for more targeted policy interventions (Table 3.4). Among these economies, nine have developed comprehensive size standards covering all three categories: micro, small, and medium enterprises. These include Australia; Brunei Darussalam; Chile; Malaysia; New Zealand; Peru; the Philippines; Russia; Thailand; and Viet Nam.

Given that most enterprises in an economy are classified as MSMEs, it is not surprising that some industries would be dominated by MSMEs. Wholesale and retail trade emerges as the sector with the highest share of total MSMEs among many APEC economies, showcasing the significance of commerce and trade-related activities for small and medium-sized enterprises. Table 3.5 shows the share of MSMEs in each sector as defined by the economy reporting it. As industry sectors, not to mention MSME classifications, are different per economy, it is

impossible to compare these figures across economies or to come up with an APEC-level average share of MSMEs in each industry.

Table 3.5. Distribution of MSMEs by Industry

Economy	Highest Share of Total MSMEs		Lowest Share of Total MSMEs		Year
	Industry	Share (%)	Industry	Share (%)	
Australia	Construction	17.2%	Public Administration and Safety	<1%	2022-23
	Professional, Scientific, and Technical Services	13.0%	Mining	<1%	
	Rental, Hiring and Real Estate Services	11.2 %	Electricity, Gas, Water, and Waste Services	<1%	
Brunei Darussalam	Wholesale and Retail Trade	35.6%	Human Health and Social Work Activities	1.1%	2022
	Accommodation and Food Service Activities	11.7%	Mining and Quarrying	0.5%	
	Professional, Technical, Administrative, and Support Services	8.8%	Electricity, Gas, Water Supply, and Other Industrial Activities	0.5%	
Canada	Professional, Scientific, and Technical Services	12.8%	Utilities	0.1%	2022
	Construction	12.6%	Management of Companies and Enterprises	0.5%	
	Retail Trade	11.1%	Mining, Quarrying, and Oil and Gas Extraction	0.6%	
Chile	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	35.2%	Water Supply; Sewerage, Waste Management, and Remediation Activities	0.5%	2021
	Manufacturing Industry	7.8%	Mining and Quarrying	0.3%	
	Construction	7.2%	Electricity, Gas, Steam, and Air Conditioning Supply	0.2%	
China					
Hong Kong, China	Import/Export Trade and Wholesale	25.7%	Mining & Quarrying; Electricity & Gas Supply; Waste Management; and Construction	0.5%	2023
	Professional and Business Services	16.3%	Manufacturing	2.1%	
	Retail	14.5%	Transportation, Storage, Postal, and Courier Services	2.4%	
Indonesia	Large Trade and Retail; Car and	28.0%			2022

Economy	Highest Share of Total MSMEs		Lowest Share of Total MSMEs		Year
	Industry	Share (%)	Industry	Share (%)	
	Motorcycle Repair and Maintenance				
	Processing Industry	11.95%			
	Education	11.56%			
Japan	Wholesale and Retail	21.7%	Electricity, Gas, Heat supply and Water	0.2%	2021
	Construction	12.6%	Finance and Insurance	0.9%	2021
	Accommodations, Eating and Drinking services	12.6%	Information and Communications	1.6%	2021
Korea	Wholesale and Retail	24.1%	Mining	0.04%	2019
	Real Estate	16.9%	Sewer/Waste Treatment, Raw Material Reproduction, and Environmental Restoration	0.2%	
	Accommodation and Restaurants	11.8%	Finance and Insurance	0.8%	
Malaysia	Service	84.7%	Mining	0.4%	2022
	Construction	7.9%	Agricultural	1.4%	
	Manufacturing	5.6%			
Mexico	Trade Sector	51.4%			2019
	Services	36.1%			
	Manufacturing	12.1%			
New Zealand	Rental, Hiring, and Real Estate	21.5%	Mining	0.1%	2022
	Construction	12.7%	Electricity, Gas, Water, and Waste	0.2%	
	Professional, Scientific, and Technical Services	11.5%	Public Administration and Safety	0.2%	
Papua New Guinea					
Peru	Trade	44.6%	Fisheries	0.2%	2022
	Service	40.7%	Mining	0.9%	
	Manufacture	8.6%	Agricultural	1.3%	
The Philippines	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	49.5%	Mining and Quarrying	0.1%	2022
	Accommodation and Food Service Activities	14.3%	Electricity, Gas, Steam, and Air Conditioning Supply	0.1%	
	Manufacturing	12.1%	Water Supply; Sewerage, Waste Management, and Remediation Activities	0.2%	
Russia	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	36.3%	Provision of Electric Energy	0.2%	2024

Economy	Highest Share of Total MSMEs		Lowest Share of Total MSMEs		Year
	Industry	Share (%)	Industry	Share (%)	
	Transportation and Storage	10.0%	Mining	0.2%	
	Construction	9.5%			
	Professional, Scientific and Technical Activities	7.8%	Water Supply	0.4%	
	Manufacturing	6.7%	Financial and Insurance Activities	0.7%	
Singapore					
Chinese Taipei	Wholesale and Retail Trade	45.9%	Human Health and Social Work Activities	0.1%	2022
	Accommodation and Food Service Activities	11.5%	Education	0.4%	
	Construction	9.5%	Electricity and Gas Supply; Water Supply and Remediation Activities	0.7%	
Thailand	Trade Sector	41.9%	Agricultural	1.7%	2022
	Service	40.1%	Manufacturing	16.3%	
United States	Health Care and Social Assistance	15.0%	Utilities	0.2%	2020
	Accommodation and Food Services	14.0%	Mining, Quarrying, and Oil and Gas Extraction	0.4%	
	Construction	9.4%	Management of Companies and Enterprises	0.6%	
Viet Nam	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	37.7%	Water Supply; Sewerage, Waste Management, and Remediation Activities	0.4%	2021
	Manufacturing	14.8%	Human Health and Social Work Activities	0.4%	
	Construction	14.3%	Mining and Quarrying	0.5%	

One general observation, however, is that MSMEs tend to concentrate in service sectors such as retail, general services, or food and accommodation. On the other hand, MSMEs tend to form a smaller share of heavy industry sectors such as mining or utilities. While MSMEs play an important role in driving innovation, employment, and economic growth, certain industries pose significant structural barriers for MSME participation, underscoring the importance of targeted policies and structural reforms to foster MSME development and competitiveness in capital-intensive sectors.

CONTRIBUTION OF MSMES TO JOBS, OUTPUT, AND TRADE

The latest data by economies reveal a substantial workforce of approximately 984 million workers employed by MSMEs in the APEC region (Table 3.6). Among these economies, China leads with a staggering 625 million employees, constituting 80.0% of the total employment in China. Following closely behind is Indonesia, with 120 million employees, representing 96.9%

of the total employment within the economy. The United States, employs 61 million employees in its MSMEs, contributing to 45.9% of the economy's total employment.

Certain APEC economies showcase remarkable dominance in terms of employment concentration within MSMEs. For instance, Indonesia and Peru stand out with more than 90% share of total employment, while China and Korea employ more than 80% of their workers in the MSME sector (Table 3.6).

Table 3.6. Employment by MSMEs

Economy	No. of Employees	Share of Total Employment (%)	Year	No. of Employees	Share of Total Employment (%)	Year
Australia	8,552,100	66.2 %	2022-23	7,601,000	68.0 %	2017-18
Brunei Darussalam	67,269	57.2%	2022	66,123	57.3%	2017
Canada	9,718,627	54.9%	2023	13,666,900	85.5%	2018
Chile	6,462,298	46.5%	2022	3,970,273	47.3%	2017
China		80.0%	2023			
Hong Kong, China	1,206,981	44.3%	2023	1,314,031	45.6%	2018
Indonesia	119,562,843	96.9%	2019	116,978,631	97.0%	2018
Japan	33,098,442	69.7%	2021	32,201,032	68.8%	2016
Korea	17,439,595	82.7%	2019	15,527,605	89.8%	2017
Malaysia	7,590,000	48.2%	2022		66.0%	2017
Mexico	18,418,279	67.9%	2018	12,729,320	63.8%	2017
New Zealand	682,900	27.7%	2023	645,300	28.8%	2018
Papua New Guinea				291,346	12.3%	2016
Peru	10,893,620	90.6%	2022	9,840,871	89.4%	2017
The Philippines	5,607,748	65.1%	2022	4,922,251	62.8%	2017
Russia	31,873,034	42.0%	2023	18,021,000	25.2%	2014
Singapore	2,570,000	71.0%	2022	2,470,000	72.0%	2017
Chinese Taipei	9,132,000	80.0%	2022	8,965,000	78.4%	2018
Thailand	12,828,236	71.0%	2022	13,950,241	85.5%	2018
United States	61,608,985	45.9%	2020	59,915,217	47.3%	2016
Viet Nam	6,910,197	47.0%	2020	6,263,989	44.5%	2017

On the other end of the spectrum, New Zealand reports that less than 30% of their workforce is employed by MSMEs, while the share of total employment is less than 50% for Chile; Hong Kong, China; Malaysia; the United States; and Viet Nam. However, it is again important to

note that the employment figures and shares reported above are not comparable and are subject to change widely depending on the definition used for MSMEs. As such, the causes for the differences in employment shares of MSMEs across APEC economies cannot be ascertained based on any available data.

Comparing the latest data with figures from about five years ago, it is evident that significant growth has occurred in employment across the APEC region. Notable examples include Mexico, which added 5.6 million MSME jobs in one year, reflecting a remarkable 45.0% increase; Chile, which added more than 2 million new additional employees over five years, demonstrating a steady 10.2% average increase per year; and Russia, which added 13.8 million MSME jobs between 2014 and 2023 (annual growth of 6.3%).[29] These figures emphasise the dynamic nature of employment trends within the APEC region and the importance of MSMEs in generating employment.

Table 3.7. Economic Contribution by MSMEs

Economy	Measure	Value	MSME Share of Total (%)	Year	Value	MSME Share of Total (%)	Year
Australia	Value Added	AUD 999.8 billion	55.8%	2022-23	AUD 666.7 billion	55.3%	2017-18
Brunei Darussalam	Share of gross GDP		5.7%	2022	BND 8.2 billion	35.4%	2017
Canada	GDP to gross GDP	CAD 890.0 billion	55.5%	2020	CAD 1.1 billion	35.0%	2017
Chile[30]					CLF 3.1 billion	13.8%	2017
China	Share of gross GDP		60.0%	2023			
Hong Kong, China	Value Added	HKD 724.9 billion	36.5%	2022	HKD 685.6 billion	37.0%	2017
Indonesia	Share of gross GDP		61.1%	2022	IDR 8,573.9 trillion	61.1%	2018
Japan	Value Added	JPY 140.1 trillion	56.0%	2020	JPY 135.1 trillion	52.9%	2015
Korea	Revenue by Business Size		48.7%	2020	KRW 255.1 trillion	50.8%	2016
Malaysia	Share of gross GDP	MYR 580.4 billion	38.4%	2022	MYR 435.1 billion	37.1%	2017
Mexico	Share of gross GDP		45.3%	2018			
New Zealand	Value Added		51.9%	2021	NZD 64.9 billion	27.9%	2014
Papua New Guinea					PGK 3.3 billion	17.3%	2016

[29] In the last five years, Russia implemented its Project on Small and Medium-Sized Enterprises (2019-2024), which aimed to increase the number of people employed in MSMEs (including individual entrepreneurs) to 25 million by 2025.

[30] CLF = Unidad de Fomento; CLF 1 = CLP 37,390 as of 23 May 2024.

Peru	Share of gross GDP	PEN 76.2 billion	31.4%	2022		30.7%	2016
The Philippines	Value Added		35.7%	2006			
Russia	Share of gross GDP	RUR 29,6 trillion	21.0%	2022	RUR 18,9 trillion	20.4%	2018
Singapore	Share of gross GDP	SGD 273.7 billion	43.0%	2022	SGD 206.2 billion	44.0%	2018
Chinese Taipei	Sales	TWD 28.6 trillion	51.6%	2022	TWD 12.6 trillion	29.6%	2018
Thailand	Share of gross GDP	THB 6.1 million	35.2%	2022	THB 6.6 trillion	42.4%	2017
United States	Share of gross GDP		43.5%	2019	USD 5.9 trillion	43.5%	2014
Viet Nam	Share of gross GDP	USD 196.0 billion	50.0%	2022	VND 8,055.9 trillion	45.1%	2016

In addition to being a key source of employment across the APEC region, MSMEs also make significant contributions to overall economic activity. MSMEs contribute between 5% to 60% of GDP or value added in those economies in which such data by firm size are available (Table 3.7). For instance, Indonesia demonstrates substantial contributions, with MSMEs accounting for 61.1% of its GDP. Similarly, MSMEs in China contributed 60.0% to its gross GDP, while MSMEs in Canada contributed 55.5%.

Conversely, certain economies exhibit lower levels of MSME contribution to GDP. Brunei Darussalam, for example, shows MSMEs accounting for only 5.7% of its GDP. Similarly, Russia and Peru report MSMEs contributing 21.0% and 31.4% to their respective gross GDPs.

Moreover, some economies have shown notable increases in MSME contribution to GDP over recent years. Canada, for instance, has experienced a 20.5 percentage points increase over three years, reflecting a substantial 6.83 percentage points increase per year. Chinese Taipei has also demonstrated significant growth, with a 22.0 percentage points increase over four years, representing a notable 5.5 percentage points increase per year.

While an APEC figure showing the contribution of MSMEs to the region's GDP would be ideal, it would be impossible to do so with the current data available. Not only are the definitions of MSMEs different, but the calculations of reported contributions are different as well. While some economies report the share of MSME contribution to gross GDP, others report in terms of value-added, while others report total sales revenue.

Reported data on the number of MSME goods exporters is available for only six out of 21 APEC economies (Table 3.8). Among these, the United States stands out with around 271,000 MSME exporters, constituting 97.4% of the total exporters in the economy. However, despite this substantial representation in exports, these exporting MSMEs only account for approximately 1.0% of the total MSMEs in the United States. Similarly, Canada reports 47,000 MSME exporters comprising 97.6% of total exporters in the economy. Nevertheless, this constitutes only about 3.5% of the total MSMEs in Canada.

Table 3.8. Number of MSME Goods Exporters

Economy	No. of MSME Exporters	Share of Total Exporters (%)	Share of Total MSMEs (%)	Year
Australia	49,912	88.7%	2.2%	2019-20
Canada	46,884	97.6%	3.5%	2022
Chile		0.4%		2023
Korea	94,635	20.0%		2023
Peru	6,848	76.4%	0.3%	2022
The Philippines		60.0%		2018
Russia	83,000	10.0%	1.3%	2023
Thailand	21,705	62.4%	0.681%	2022
United States	271,241	97.4%	1.0%	2021

Peru also participates in MSME exports, with 7,000 MSME exporters contributing to 76.40% of the total exporters in the economy. However, in contrast to the United States and Canada, the percentage of MSMEs engaged in exports is relatively lower for Peru, accounting for approximately 0.3% of the total MSMEs. On the other hand, Chile reports that only 0.4% of its total exporters are from the MSME sector.

Table 3.9. MSME Goods Export Value

Economy	Value of MSME Exports	Share of Total Export Value (%)	Year	Value of MSME Exports	Share of Total Export Value (%)	Year
Australia	AUD 14.3 billion	3.8%	2019-20	AUD 13.9 billion	4.4%	2017-18
Canada	CAD 308.5 billion	40.8%	2022	CAD 199.6 billion	39.3%	2018
Chile		2.0%	2023	USD 1.4 billion	2.2%	2017
Indonesia	IDR 339.2 billion	15.7%	2019	IDR 293.8 trillion	14.4%	2018
Korea		16.7%	2022	USD 206.2 billion	34.1%	2018
Malaysia	MYR 144.5 billion	10.5%	2022	MYR 167.4 billion	17.3%	2017
Mexico		10.0%	2019	MXN 192.0 billion	12.5%	2017
Peru	USD 4.4 billion	7.2%	2022	USD 2.3 billion	5.6%	2017
Chinese Taipei	TWD 3.6 trillion	24.6%	2022	TWD 1.5 trillion	13.7%	2018
Thailand	THB 1.1 trillion	10.6%	2022	THB 2.3 trillion	28.7%	2018
United States		32.6%	2020	USD 459.7 billion	33.4%	2017

Data on MSME goods export value is gathered by 11 APEC economies (Table 3.9). Canada stands out with a reported 40.8% of the economy's total export value attributed to MSMEs, followed by the United States at 32.6%. Chinese Taipei demonstrates a notable share of MSME export value, accounting for 24.6% of its total export value. On the other hand, among the economies that collect this data, Australia and Chile report MSME export value shares at below 5% of total exports. However, as with other reported data, this data on MSME export shares is not comparable, aggregable, or averageable due to the inconsistency and incomparability of the underlying data.

Sex-disaggregated data on MSMEs is scant and is collected by 11 APEC economies (Table 3.10). Russia reports that 44.0% of its MSMEs are wholly or partly owned by women, followed by Peru at 43.1%. Following closely is the United States, where 42.0% of non-employer MSMEs are owned at least partly by women. Chile and Korea report female MSME ownership at 41.7% and 40.7%, respectively.

Table 3.10. Female Entrepreneurs and Employees

Economy	Share of MSMEs Owned by Women (full or partly) (%)	Female Share of Employees (%)	Year
Australia	34.9%[31]		2021
Canada	15.6%		2017
Chile	41.7%		2022
Indonesia		36.3%	2022
Korea	40.7%		2021
Mexico	36.6%		2018
Peru	43.1%	42.4%	2022
Russia	44.0%		2023
Chinese Taipei	37.3%		2022
United States	21.7% (employer firms) 42.0% (non-employer firms)	47.2%	2019
Viet Nam		47.3%	2019

On the other hand, only four economies report the share of women in MSME employment, ranging from 36.3% in Indonesia to 47.3% in Viet Nam (Table 3.10).

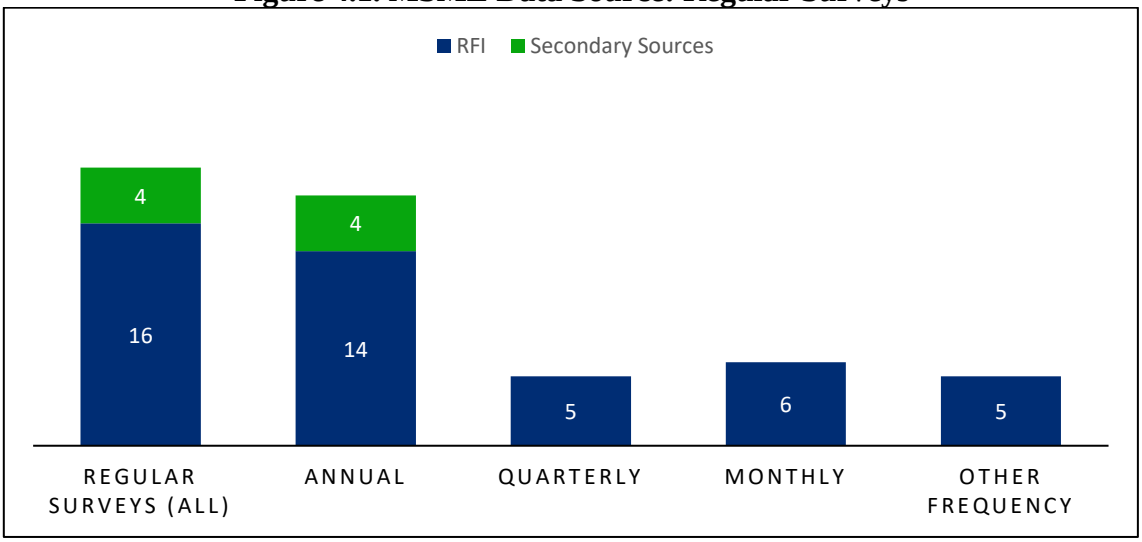
[31] This figure refers to the share of female small business owners in the total number of small business owners (i.e., excludes owners of medium-sized businesses). This statistic is based on owners and not firms because more than one person can own a business, and one person may own several businesses. The number of small business owners accounts for 95% of the total number of business owners in 2021.

4. MSME DATA COLLECTION IN APEC: INSIGHTS FROM THE RFI

MSME DATA SOURCES

Within the APEC region, member economies rely predominantly on regular business or firm-level surveys to gather data on MSMEs. Twenty APEC economies utilise this method. Among them, 18 economies conduct these surveys annually, while five economies carry them out quarterly, and six economies undertake them monthly (Figure 4.1). On the other hand, five economies opt for different intervals. For instance, Brunei Darussalam administers the Economic Census of Enterprises (ECE) every five years, similar to Mexico's periodic surveys. Besides its 5-year interval survey, Mexico has introduced annual experimental statistics on the Survey of International Trade in Services (ECIS) since 2021.

Figure 4.1. MSME Data Source: Regular Surveys



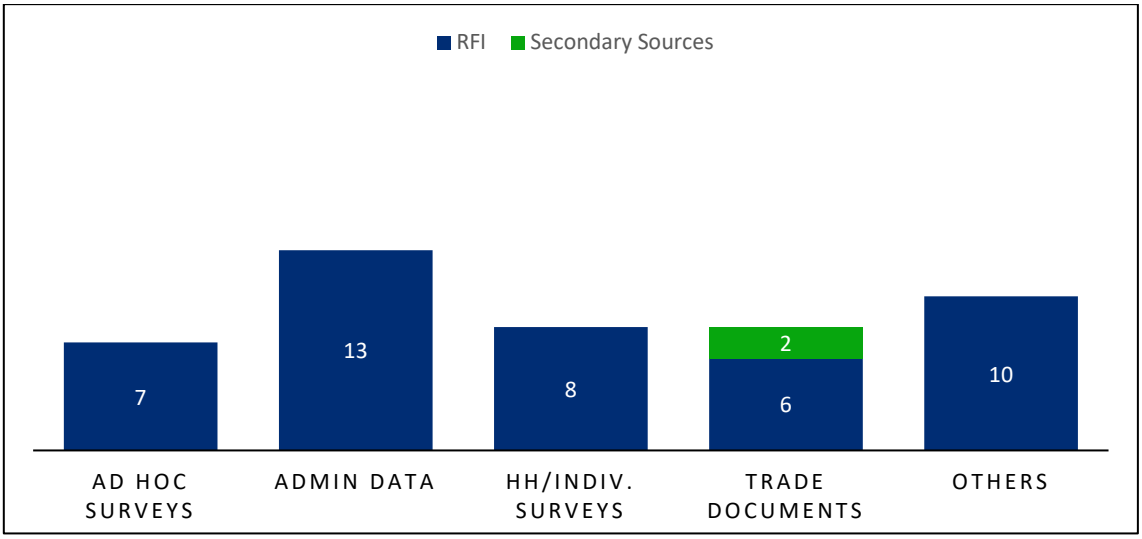
Note: Figures denote number of economies.

Chile employs a multifaceted approach, conducting biennial surveys like the Microentrepreneurship Survey (EME) and the Longitudinal Survey of Companies (ELE), alongside other surveys conducted on a triennial and monthly basis. Singapore conducts biennial surveys such as the Singapore Intellectual Property Survey.

Apart from regular business surveys, seven economies within the APEC region gather MSME data through ad-hoc or occasional business surveys or studies (Figure 4.2). Australia and Singapore both employ various surveys, with Australia maintaining numerous ongoing surveys across diverse areas relevant to MSMEs. Meanwhile, Singapore had scheduled surveys for the third quarter of 2023, subject to the continued relevance of survey topics.

Brunei Darussalam and Mexico utilise surveys or studies conducted by several agencies, covering a wide range of topics such as digital demand, the impact of COVID-19, and labour shortages. Chile conducts studies based on the outcomes of the EME every June, alternating with the ELE each year. China adopts a flexible approach, conducting studies or surveys as required by different government agencies or institutions.

Figure 4.2. MSME Data Source: Others



Note: Figures denote number of economies.

Across the APEC region, 13 economies primarily rely on administrative data sources to gather information on MSMEs, indicating a reliance on governmental records and registrations. For example, Australia; Canada; and Peru utilise business tax filings, tax registries, and related governmental program data for MSME data collection.

Brunei Darussalam; Hong Kong, China; Korea; the Philippines; Singapore; Thailand; and the United States utilise business or company registrations as their primary data sources, which underscores the importance of formal registration processes in capturing MSME information. Chile and Chinese Taipei compile business statistics and data on enterprises and sales figures. China's data is disseminated by various ministries and administrations, suggesting a coordinated effort across government bodies.

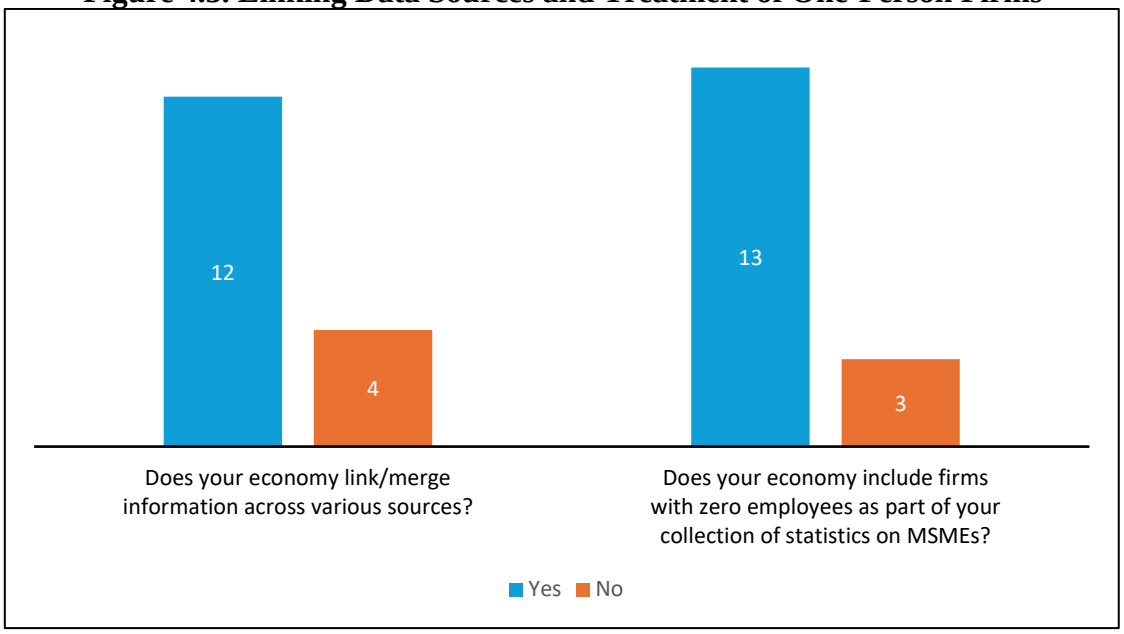
Furthermore, eight APEC economies utilise household- or individual-level surveys to gather data on MSMEs, highlighting another common approach to capturing insights into economic activities. For instance, Australia; Brunei Darussalam; and Canada conduct labour force surveys to assess employment patterns and economic participation, furnishing valuable information on MSME employment trends and workforce dynamics.

Meanwhile, Peru collects MSME-related data from household surveys. Chile employs multiple household- or individual-level surveys to comprehensively capture household economic data, including MSME-related indicators. China's data on MSMEs focuses on employment-related statistics. Additionally, Chinese Taipei emphasises the number of employed persons, offering a crucial indicator of MSME workforce participation. Depending on the sampling methodology, labour force surveys and household surveys can capture employment and entrepreneurial activity, including by MSMEs, in the informal sector.

In the APEC region, eight economies leverage trade documents as a data source for MSMEs, emphasising a shared reliance on customs-related information to comprehend trade dynamics and business activities. Canada; Korea; Mexico; and Peru, for example, utilise customs declarations as key sources of MSME activity. China and Singapore both rely on customs data provided by governmental agencies, further highlighting the significance of customs documentation in evaluating trade activities and MSME involvement in international trade.

Moreover, 10 APEC economies utilise various alternative data sources to gain insights into MSMEs, showcasing a diverse range of methodologies tailored to capture specific aspects of business activities and characteristics. These alternative sources encompass the population, housing, or labour census, private data providers, and consolidated credit reports.

Figure 4.3. Linking Data Sources and Treatment of One-Person Firms



Note: Figures denote number of economies.

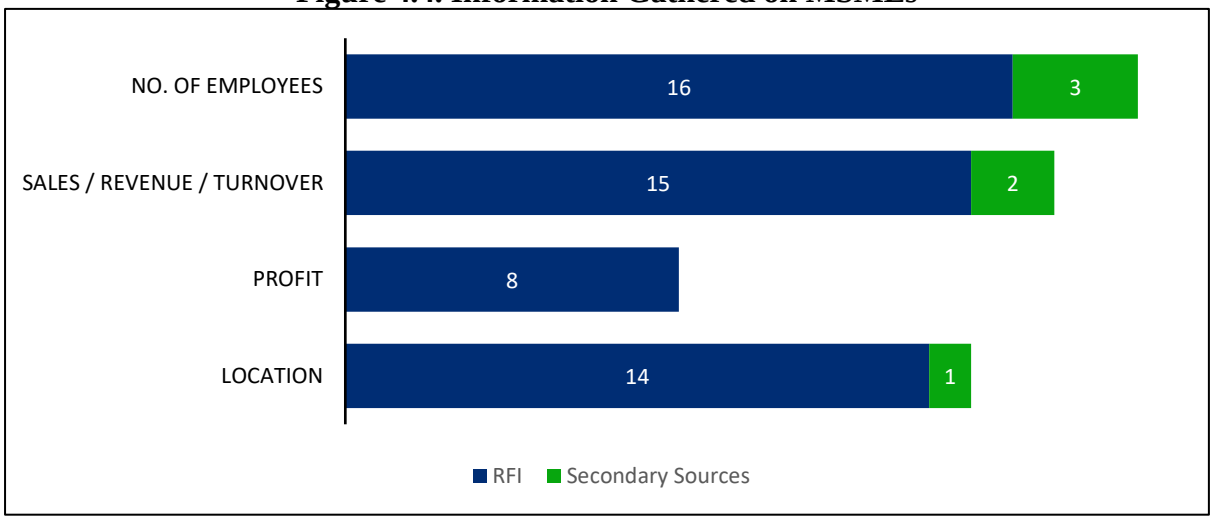
Twelve economies practice linking or merging information across various sources to enhance the comprehensiveness of MSME statistics (Figure 4.3). This method involves integrating data from multiple sources such as business surveys, administrative records, and other data sources to create a unified and comprehensive dataset for analysing MSME dynamics.

Regarding the inclusion of firms with zero employees, 13 economies encompass self-employed persons and firms with zero employees in their collection of statistics on MSMEs. The inclusion of zero-employee firms—sometimes classified as own-account or self-employed workers—can have a significant implication on the reporting of MSME data due to base effects.

MSME DATA POINTS

APEC economies gather a diverse range of information on MSMEs to understand their characteristics, performance, and contributions to the economy. This includes data on the number of employees, with 19 member economies collecting information on workforce size, providing insights into the scale and composition of these businesses. Additionally, 17 economies gather data on the annual or monthly sales, revenue, or turnover of MSMEs, offering valuable insights into their financial performance and economic impact. Furthermore, eight economies collect information on the annual profits or losses of MSMEs, enabling assessments of their financial viability and sustainability over time. Regarding location, 15 economies gather data on the geographic distribution of MSMEs, although only four economies classify them according to urban or rural/remote areas.

Figure 4.4. Information Gathered on MSMEs



Note: Figures denote number of economies.

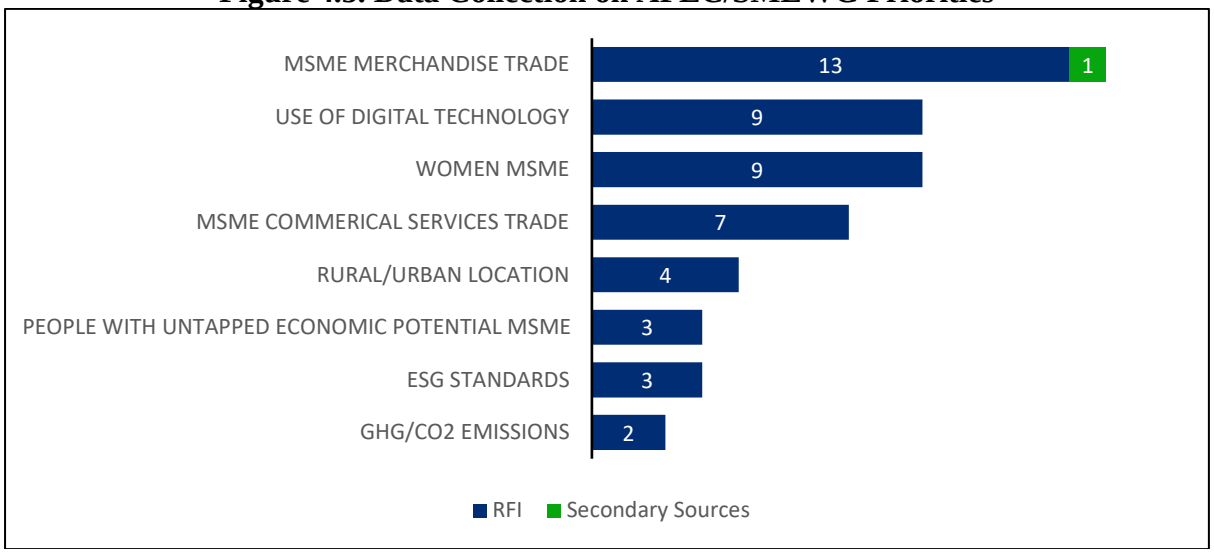
Moreover, 18 economies collect information on the industrial sector or type of business of MSMEs, providing insights into their areas of operation and specialisation. However, only seven economies utilise International Standard Industrial Classification (ISIC) codes, which can facilitate the classification and comparability of data across different economies.

Nine economies gather data on the use of digital technology among MSMEs, reflecting an interest in understanding the digital transformation of businesses and its implications for competitiveness and productivity (Figure 4.5).

China and Mexico gather information on greenhouse gas and/or carbon dioxide emissions from MSMEs, highlighting a shared commitment to environmental sustainability and climate change mitigation within the business sector. On the other hand, Canada; China; and Malaysia collect data on MSMEs' compliance with Environmental, Social, and Governance (ESG) standards, underscoring the importance of promoting responsible business practices and corporate sustainability.

Six APEC economies gather information on various aspects beyond the typical MSME metrics, demonstrating a nuanced approach to understanding MSMEs. For example, Canada focuses on financing, innovation, exports, and other international business activities, along with intellectual property holdings and ownership characteristics. China gathers data on the average number of new businesses, shedding light on entrepreneurial activity and the dynamics of business formation within the economy. Malaysia, on the other hand, emphasises the implementation of Social Enterprise elements across its programs, underscoring a commitment to social entrepreneurship and inclusive economic development.

Figure 4.5. Data Collection on APEC/SMEWG Priorities



Note: Figures denote number of economies.

Moreover, Mexico's data collection efforts encompass international trade in services (ECIS), access to financing (ENAFIN), global production chains, technological and innovation capabilities, business environment regulation, and awareness of government support programs (ENAPROCE), offering a holistic view of MSMEs' engagement with the global economy and their innovation ecosystem. Peru focuses on foreign trade value and volume, particularly exports and imports, highlighting MSMEs' participation in international trade and their contributions to economic growth and development. Likewise, Thailand utilises the Thailand Standard Industrial Classification (TSIC) to categorise businesses, facilitating the analysis and comparison of MSMEs across different sectors of the economy.

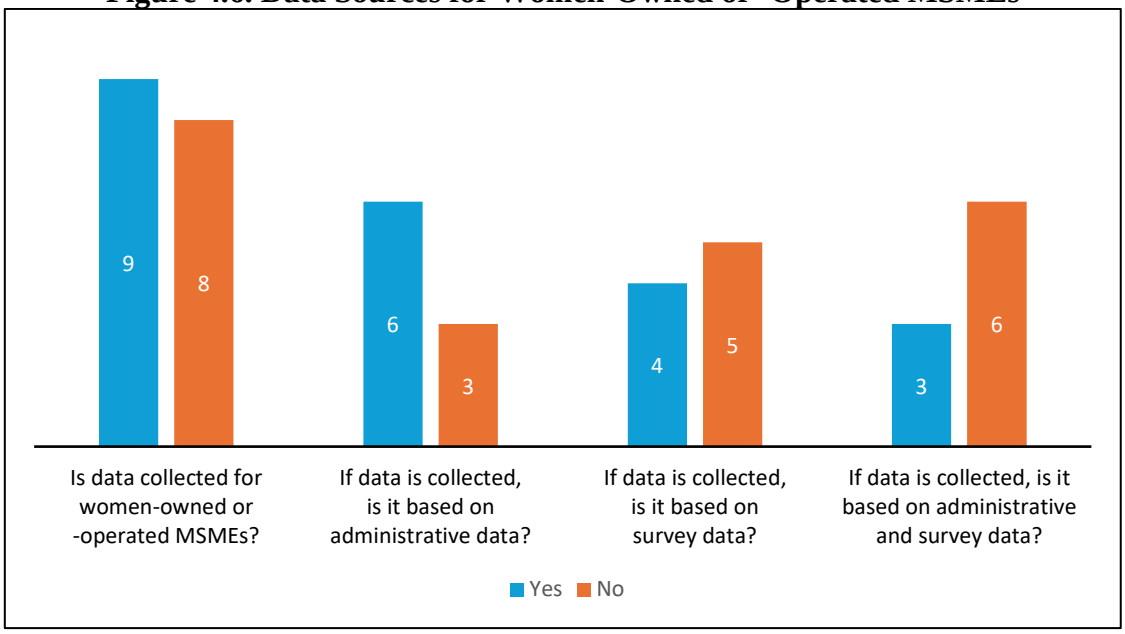
Women and MSMEs

Only nine APEC economies identify MSMEs that are owned or operated by women, which enables monitoring of gender equality and recognising the significant contributions of women entrepreneurs to the economy. The criteria for defining a woman-owned or -operated MSME vary across member economies, reflecting diverse approaches to measuring women representation in business ownership and management. For instance, economies like Brunei Darussalam; Canada; Korea; Mexico; Peru; and the United States assess ownership percentages or significant control by women to categorise MSMEs as women-owned or -operated. In contrast, Chile employs various indicators across surveys and administrative data sources, such as legal organisation or sex-disaggregated data associated with taxpayer identification numbers. Similarly, Chinese Taipei distinguishes enterprise registrants as male or female, suggesting potential categorisation of MSMEs based on registrants' sex. Despite adopting the women-owned and -led definition of the International Finance Corporation, the Philippines currently does not collect data based on this definition.

APEC economies gather data on women-owned or -operated MSMEs primarily from administrative data sources and surveys (Figure 4.6). Brunei Darussalam relies on the Registry of Companies and Business Names as its main data source. Similarly, Canada utilises both survey data and administrative data to identify women-owned or -operated MSMEs. In Chile, data is gathered from various sources including the EME and ELE surveys, as well as business statistics from the Internal Revenue Service (SII). Korea relies on administrative data from Statistical Business Registers for this purpose. Mexico relies on data from Mexico's Economic

Censuses to identify women-owned or -operated MSMEs. Peru utilises administrative data from the Single Taxpayer Registry. Chinese Taipei also utilises administrative data, while the United States gathers data from the Annual Business Survey (ABS) and Nonemployer Statistics by Demographics (NES-D).

Figure 4.6. Data Sources for Women-Owned or -Operated MSMEs



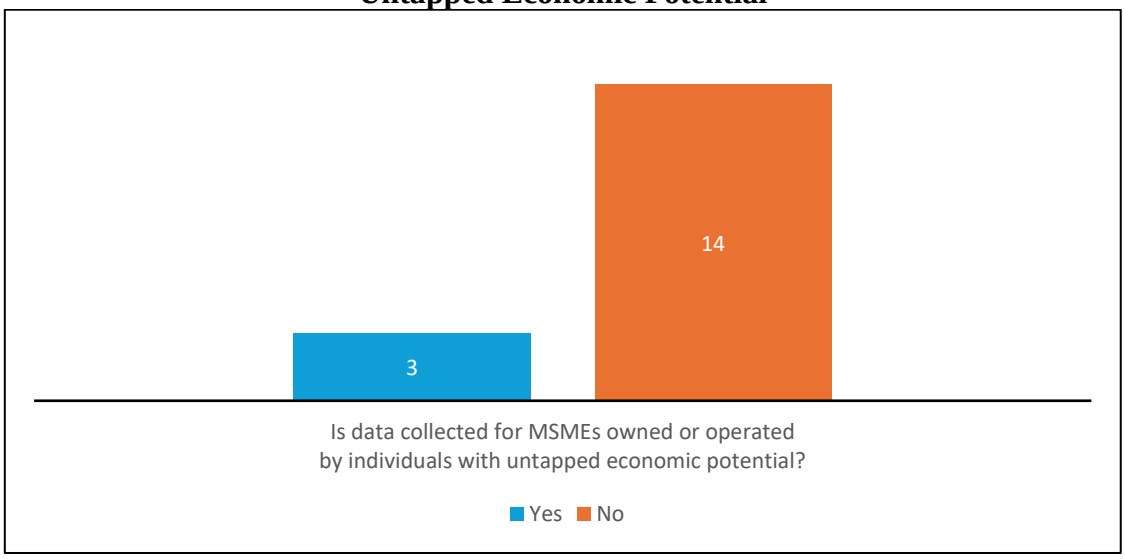
APEC economies vary in their regular reporting practices regarding the performance of women-owned or -operated MSMEs. Canada; Korea; Chinese Taipei; and the United States regularly report on such performance, with Canada providing consistent reporting and Korea also indicating regularity. In Brunei Darussalam, data on women-owned or -operated MSMEs is shared only upon request or when necessary.

In Chile, the performance of micro-entrepreneurs, including profits and employment figures, is distinguished by sex in the EME survey, while administrative data from SII captures sales segmentation over time. Mexico reports on the performance of these MSMEs every five years, aligning with periodic economic censuses. Peru, on the other hand, reports annually on their performance. China's reporting is announced by the All-China Women's Federation, suggesting a centralised approach to disseminating this information.

People with Untapped Economic Potential and MSMEs

An overwhelming majority of APEC economies currently lack statistical data on MSMEs owned or operated by individuals from groups with untapped economic potential (Figure 4.7). Even for APEC economies currently collecting such data, they vary in their identification of MSMEs owned or operated by individuals from groups with untapped economic potential.

Figure 4.7. Data Collection on MSMEs Owned or Operated by Individuals with Untapped Economic Potential



Note: Figures denote number of economies.

Canada leads in this regard, as its MSME data currently identify several groups, including Indigenous peoples, visible minorities, Black individuals, immigrants, women, and persons with disabilities. The United States also identifies MSMEs owned or operated by women, Black or African American individuals, Asian individuals, Hispanic individuals, Native American and Alaska Native individuals, Native Hawaiian and Other Pacific Islander individuals, as well as veterans. Australia focuses on Indigenous businesses as a specific group with untapped economic potential. These efforts highlight the importance of recognising and supporting diverse entrepreneurial communities to foster inclusive economic growth across the APEC region.

Moreover, APEC economies define an MSME owned or operated by people with untapped economic potential based on various criteria. For instance, in Canada, such MSMEs are identified based on the percentage of ownership held by individuals from specific groups, including Indigenous peoples, visible minorities, Black individuals, immigrants, women, and persons with disabilities. Similarly, Australia's definition focuses on Indigenous businesses, requiring them to be at least 50% Indigenous-owned for most purposes.

In contrast, in the United States, while there isn't a specific definition for MSMEs, the broader definition includes individuals from marginalised groups such as Black, Latino, Indigenous, and Native American persons, Asian Americans and Pacific Islanders, LGBTQ+ persons, persons with disabilities, and those living in rural areas.

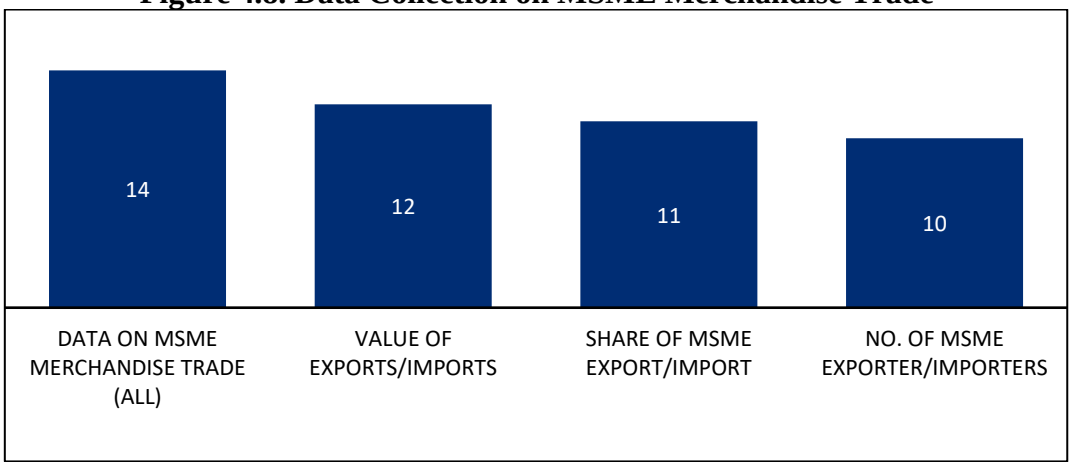
APEC economies gather data on MSMEs owned or operated by people with untapped economic potential from various data sources. In Canada and the United States, this information is sourced from survey data and administrative records. Specifically, Canada relies on a combination of survey data and administrative sources to identify MSMEs owned by individuals from specific demographic groups, while the United States utilises the ABS and NES-D to capture such MSMEs. On the other hand, Australia gathers data on Indigenous businesses, which are considered MSMEs with untapped economic potential, from multiple business registration platforms, including the Office of the Registrar of Indigenous Corporations.

Member economies in APEC vary in their regular reporting practices regarding the performance of MSMEs owned or operated by people with untapped economic potential. Australia; Canada; and the United States each have distinct approaches to gathering and reporting data on these MSMEs. Australia collects information on Indigenous businesses from various business registration platforms, including the Office of the Registrar of Indigenous Corporations. However, it does not specify regular reporting practices for the performance of these businesses. Similarly, Canada relies on survey data and administrative records to identify MSMEs owned by individuals from specific demographic groups, but there is no indication of regular reporting specifically on their performance. In the United States, data from sources like ABS and NES-D contribute to understanding the performance of MSMEs owned or operated by individuals with untapped economic potential.

MSME Internationalisation

A significant number of APEC economies, totalling 14, monitor and measure the trading activities conducted by MSMEs, including both exports and imports of merchandise (Figure 4.8). Specifically, 12 APEC economies track the value of exports and imports generated by MSMEs, providing insights into the volume and monetary value of international trade activities conducted by these businesses.

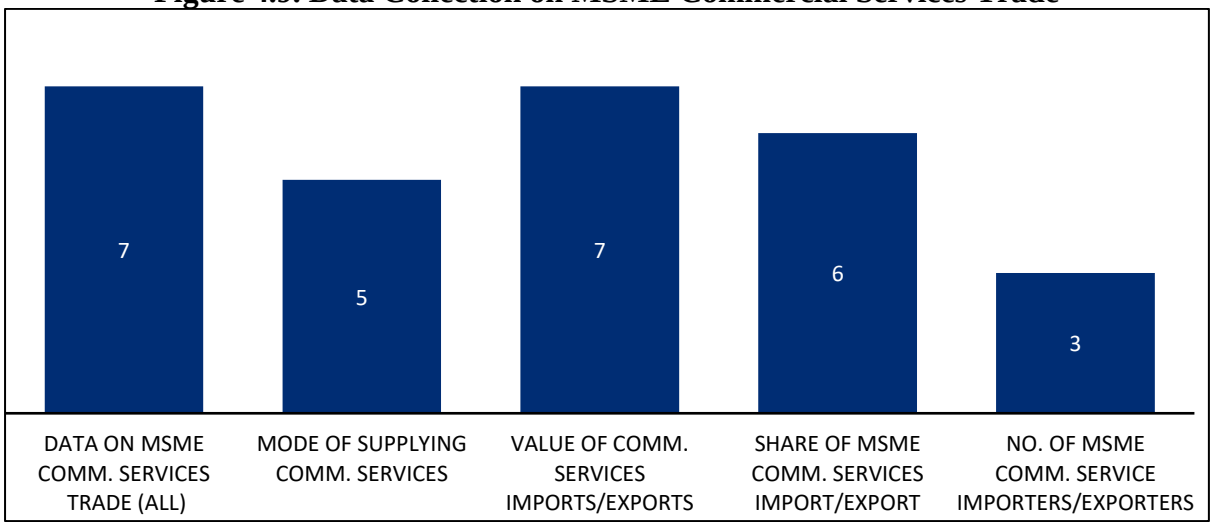
Figure 4.8. Data Collection on MSME Merchandise Trade



Additionally, 11 APEC economies monitor and measure the share of MSMEs engaged in exporting and importing activities, enabling a deeper understanding of the participation rate of MSMEs in international trade. Moreover, 10 APEC economies keep tabs on the number of MSME exporters and importers, offering valuable data on the extent of MSME involvement in global trade transactions. APEC economies gather data on MSMEs' trading activities from various sources, including customs data, trade documents, regular business surveys, and administrative data.

Moreover, APEC economies are actively engaged in monitoring and measuring the imports and exports of commercial services by MSMEs, reflecting a concerted effort across the region. Specifically, seven economies are focused on tracking the imports and exports of commercial services by MSMEs (Figure 4.9). Additionally, five economies collect data on the mode of supply of commercial services exports, providing insights into how these services are delivered internationally.

Figure 4.9. Data Collection on MSME Commercial Services Trade



Seven economies gather data on the value of services imports and exports, offering a financial perspective on MSME trade activities. Furthermore, six economies monitor the share of MSMEs involved in importing and exporting commercial services, highlighting the participation rate of these businesses in international trade. Finally, three economies collect data on the number of MSME service importers and exporters, offering a detailed look at the entities engaged in global commerce.

5. ANALYSIS AND NEXT STEPS

A review of existing MSME data as well as economies' responses to the RFI process have yielded several points of observation regarding data comparability and interoperability:

Incomparability of MSME data. This observation stems from the differences in how economies not only identify MSMEs in their context, but also in the way they report their MSME data. There is no common data semantics, taxonomy, or format in the processing or presentation of MSME data. This presents significant problems in finding appropriate measures for the contribution of MSMEs to macroeconomic indicators like economic output or employment. For example, the reported share of workers employed by MSMEs ranges from 28% to 97%, but this range may just be due to differences in how the figures are derived rather than any underlying economic structure in the employment by MSMEs in APEC economies.

Non-aggregability of MSME data. Incomparability of MSME data results in non-aggregability; that is, an inability to meaningfully sum up or find averages at the regional level. While it would be possible to add reported numbers by economies, the underlying incomparability will render any APEC-level aggregate sum or average informationally deficient and runs the risk of being misleading. One cannot find figures like "total number of workers employed by MSMEs in APEC" or "share of APEC GDP produced by MSMEs." This problem becomes even more evident when trying to cross-reference MSME data with demographic information, such as "share of APEC MSMEs owned or operated by women."

Non-conducive to regional analysis. The incomparability of MSME data as well as their non-aggregability contribute to a situation where it is very difficult to make any quantitative statements or analysis regarding the state of MSMEs in the region. This makes it difficult to gauge whether the share of MSMEs participating in international trade is increasing, or whether efforts towards women's economic inclusion in MSMEs are having an impact on the region.

On the other hand, several findings have also pointed to opportunities for improving MSME data comparability and interoperability. These findings include:

- **20 economies** already conduct firm-level surveys to provide information on MSMEs. In 18 economies these surveys are conducted annually, while others conduct them more frequently (monthly or quarterly). This indicates that systems for MSME primary data collection, collation, processing, and reporting are already in place for almost all APEC economies. This also implies that there is ample administrative and statistical technical capacity in most economies to implement basic data interoperability steps.

- While sources of data are diverse, **12 economies** are already linking data across various surveys, administrative records, trade documents, etc. An ability to link across data sources greatly expands the possibilities for data analysis and interoperability. This presents an opportunity to explore how data merging can supplement existing data gaps.

- **19 economies** collect MSME data on the number of employees, 17 economies collect data on MSME sales or revenue, and 14 economies collect data on MSME merchandise trading activity. This shows a rich set of data already being collected by economies.

- On the other hand, it is also clear that there are still some data gaps in relation to monitoring SMEWG priorities such as inclusion, sustainability, participation in international trade as well as digitalisation.

However, steps towards data interoperability and capacity building will need to be mindful of the real budgetary and workload constraints faced by agencies generating MSME data. Steps in improving APEC's MSME data comparability and interoperability will need to be guided by the following general principles:

1. **No change in domestic regulations regarding MSMEs.** It is important to recognise that domestic MSME definitions are based on an economy's economic, industrial, and inclusion priorities. At no point will steps require or consider any change in legislation or regulation to accommodate data interoperability. A key principle in data interoperability is adaptability to domestic situations and circumstances.

2. **Minimal impact on primary data collection or collation costs.** To the extent possible, the actions will utilise economies' existing data sources and collection processes. No change in survey methodology or calendars are envisioned. However, additional rider question(s) may be needed for existing surveys; for example, to ask about gender equality issues of MSME ownership or to tick on the rural or urban location of firms.

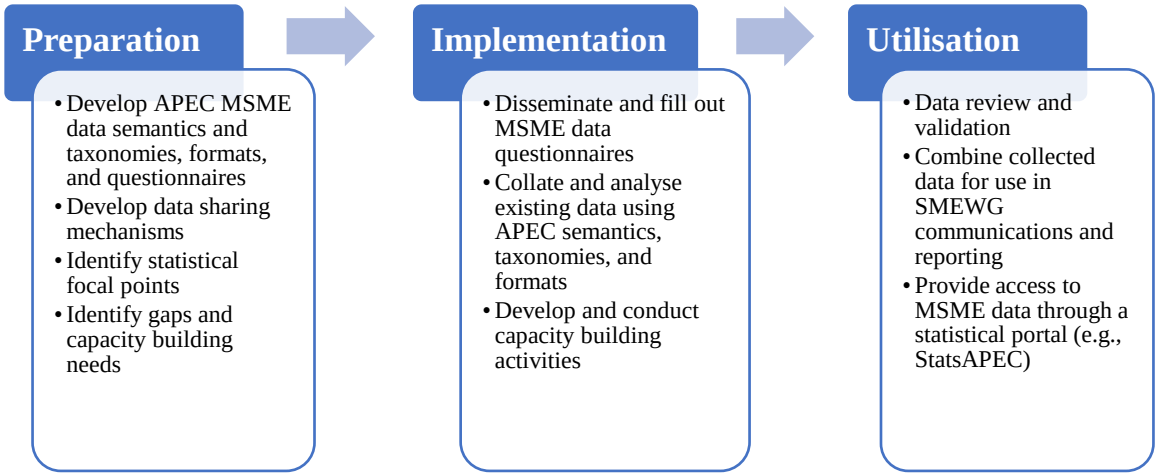
3. **Feasible adjustments to data processing, analysis, and reporting.** Agencies that conduct field surveys, collate data from many sources, and publish analytical reports on MSMEs already possess the required administrative and technical capabilities to produce their outputs. Future actions will need to tap onto existing administrative and technical capabilities to achieve MSME data comparability and interoperability.

4. **Conduct MSME data capacity building as needed.** The RFI responses have shown a significant diversity across APEC economies in terms of statistical capacity as well as experience in developing MSME metrics. For example, while some economies have no measurement of their MSMEs' carbon footprint, other economies have already developed feasible methodologies for measuring greenhouse gas emissions or adherence to ESG standards. In areas where there is wide diversity, statistical capacity building will be needed as an avenue for ongoing regional cooperation on MSMEs.

STEPS TOWARDS DATA INTEROPERABILITY

Achieving data interoperability while working within the principles stated above will require a systematic and coordinated approach with the cooperation of SMEWG members as well as the APEC Secretariat and stakeholders. Three general steps will need to be thought out in the process of achieving interoperability: Preparation, Implementation, and Utilisation (Figure 5.1).

Figure 5.1. General Steps for MSME Data Interoperability



Adapted from Cheng et al. (2024).[32]

Preparation. At the preparation phase, SMEWG members with assistance from the APEC Secretariat and other stakeholders, as needed, will first need to develop unified MSME data semantics and taxonomies, formats, and reporting mechanisms to enable an interoperable data sharing environment.

- **Data semantics and taxonomies.** These are basically statistical and operational definitions of how the primary data should be processed to be amenable for further processing and combination between economies. This should not be confused with how an economy defines what an MSME is in its laws or regulations; rather, it is a set of instructions on how existing MSME data could be processed in a coordinated manner. For example, an economy that classifies an MSME based on sales or revenue can continue doing so and report MSME data based on the existing legal definition. The implementation of APEC-wide MSME data semantics entails the use of the same data, but may require it to be additionally processed according to the number of employees: this could be done with a simple statistical programming command for APEC-wide reporting purposes and will have no implications on any domestic MSME laws, regulations, or policies.

  Discussing and agreeing on a set of data semantics and taxonomies will require a technical conversation between data analysts and statisticians. While the responses to the RFI already point to a low-hanging fruit—e.g., almost all economies already conduct regular firm-level surveys and gather data on the number of employees—the technical details of these data semantics and taxonomies will need to be threshed out in a scientific and systematic manner. Table 5.1 provides a non-exclusive, non-exhaustive sample of the scope of the data discussions needed for MSME data interoperability.

[32] Cheng, C., Messerschmidt, L., Bravo, I. et al. A General Primer for Data Harmonization. *Scientific Data* 11, 152 (2024). https://doi.org/10.1038/s41597-024-02956-3.

Table 5.1. Sample for APEC MSME Data Semantics and Taxonomy

MSME Data			
	Micro* $x < a$	**Small*** $a \leq x < b$	**Medium*** $b \leq x < c$
A. Number of MSMEs (N)	Number of registered enterprises satisfying the categories for micro, small, or medium sized enterprises. Sum is the total number of MSMEs. This includes registered firms with zero employees.		
B. Share in total (%)	[A] divided by the total number of registered enterprises.		
C. Employment (N)	Number of people employed by micro, small, or medium enterprises.		
D. Share in employment (%)	[C] divided by the total number of employed persons.		
E. Total output (LCU)	Total value of turnover of MSMEs, in local currency units (LCU).		
F. Share in GDP (%)	[E] divided by GDP, both in LCU.		
MSME Internationalisation			
G. MSMEs engaged in cross-border trade in goods (N)	Number of MSMEs directly engaged in merchandise goods import or export activities. Direct engagement could be disaggregated by mode: a. **Digitally ordered:** Engagement with trading partner(s) is conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders (e.g., e-commerce platforms). **b. Non-digitally ordered:** Engagement with trading partner(s) is done through other communication channels and methods not specifically designed for the purpose of receiving or placing orders (e.g., direct messaging, phone, fax, email).		
H. MSMEs engaged in cross-border trade in services (N)	Number of MSMEs directly engaged in services import or export activities. Direct engagement could be disaggregated by mode: a. **Digitally ordered:** Engagement with client(s) or service provider(s) is conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders (e.g., e-commerce platforms). b. **Non-digitally ordered:** Engagement with client(s) or service provider(s) is done through other communication channels and methods not specifically designed for the purpose of receiving or placing orders (e.g., direct messaging, phone, fax, email).		
I. Value of trade in goods (LCU)	Total value of direct merchandise trade by MSMEs, in LCU: a. **Imports**: Total value of goods directly imported by MSMEs. b. **Exports**: Total value of goods directly exported by MSMEs.		
J. Value of trade in services (LCU)	Total value of direct services trade by MSMEs, in LCU: **a. Imports**: Total value of services payments made by MSMEs to cross-border service providers. **b. Exports**: Total value of revenue received by MSMEs from cross-border service clients.		
K. Share of MSMEs engaged in trade (%)	([G] + [H]) divided by [A].		
L. Share of MSMEs in total trade (%)	([I] + [J]) divided by (total exports + total imports).		

* x = measurable and observable characteristic for each registered or surveyed enterprise; a, b and c are parameters in the same unit as *x* such that $a < b < c$.
Source: Authors.

- **Data formats and questionnaires.** Data could be transmitted in many ways, from numbers on a piece of paper to digital spreadsheets amenable to further data processing. While this may seem like a straightforward issue, coordinating data formats early on will ensure a smoother process and reporting mechanism later on.

- **Data sharing mechanisms and economy focal points.** Who disseminates and collects the questionnaires? When are questionnaires disseminated, and how long is the time period for responses? Identifying and agreeing on these procedural issues will facilitate the statistical work during the implementation phase. Likewise, identifying statistical focal points—i.e., someone who directly works on MSME data collection or processing/analysis—will be crucial to ensure the robustness of data inputs and submissions. This focal point will also facilitate the operationalisation of APEC MSME data semantics and formats with domestic statistical processes and formats.

- **Capacity building needs.** The responses to the RFI show the gaps between SMEWG's priorities and the available data to monitor progress on these priorities. Data gaps are especially evident in the areas of inclusion (women, people with untapped economic potential), sustainability, digitalisation, and internationalisation. Economies with experience in data gathering and metrics may consider developing capacity building projects in these areas.

Implementation. Compared to Preparation, the Implementation phase is fairly straightforward as economies and the APEC Secretariat conduct the agreed-upon processes and reporting mechanisms. What is important to consider in this phase is the clarity of roles between various stakeholders in the process and avenues for communication and coordination. As technical personnel process their data and fill out the questionnaire, unexpected issues can arise. Ensuring a robust process for clarification and process refinement is important.

Utilisation. As a lot of work goes into gathering MSME data and ensuring their interoperability across APEC economies, it is important to ensure that the data is (1) of good quality for analysis, (2) utilised towards monitoring of SMEWG's and APEC's progress on MSME issues, and (3) disseminated to policymakers, researchers, and stakeholders who need access to the data.

- **Data review and validation.** This step is needed to ensure the quality and robustness of submitted data. It may require cleaning the data of inconsistencies, double-checking with statistical focal points, and ensuring completeness and availability of MSME data. As many economies are independently contributing data, this step of review and validation needs to be done centrally to ensure consistency and quality.

- **Monitoring, communication, and policymaking.** Having interoperable MSME data at the APEC level—the first of its kind if done successfully—opens many doors for monitoring of progress, credible communication of achievements, and evidence-based policymaking for the MSME sector. It would be recommendable to have an established process to ensure that this data is maximally utilised in SMEWG discussions and reports.

- **Dissemination and access.** Having regular, comparable, and interoperable data on MSMEs across economies also presents an opportunity to provide a statistical public good for APEC's stakeholders around the region. The lack of reliable cross-economy

data on MSMEs presents a constraint not only for SMEWG but also for researchers and policymakers across the region. One way to ensure access to this public good is to store the growing time-series data in a statistical portal. It is understood that developing and maintaining a statistical portal could be a costly endeavour, but opportunities could be explored in hosting the data in existing statistical portals maintained by economies or the APEC Secretariat.

One example is the StatsAPEC[33] portal maintained by the Policy Support Unit. It currently contains high-quality panel data from other organisations and data providers. Data contained in the portal is required to be annually updated, made comparable across economies, and have consistent data semantics and taxonomies to be assembled into proper panel data. Therefore, MSME data that is comparable, interoperable, and regularly updated will fulfil the necessary requirements for inclusion in StatsAPEC.

[33] https://statistics.apec.org/

APPENDIX 1: MSME DEFINITIONS

Economy	Size	Employees	Sales/ Revenue	Assets/ Capital	Sector/ Industry
Australia	Micro	0-4			
	Small	5-19 (total small is 0-19)	< AUD 10 million		
	Medium	20-199	< AUD 50 million		
	Large	>200	> AUD 50		
Brunei Darussalam	Micro	1-4			
	Small	5-19			
	Medium	20-99			
	Large	>100			
Canada	Small	1-99			
	Medium	100-499			
	Large	>500			
Chile[34]	Micro	1-9	< CLF 2,400		
	Small	10-49	< CLF 25,000		
	Medium	50-249	< CLF 100,000		
	Large	>250	> CLF 100,000		
China	Micro	<10	Varies by sector		
	Small	10-100			
	Medium	100-299			
	Large	300			
Hong Kong, China	SME	<50			Non-Manufacturing
		<100			Manufacturing
Indonesia	Micro	1-4	> IDR 300 million	> IDR 50 million	
	Small	5-19	> IDR 2.5 billion	> IDR 500 million	
	Medium	20-99	> IDR 50 billion	> IDR 10 million	
Japan[35]	Micro Small	<20			Manufacturing, construction, transportation, or any other category of business

[34] CLF = Unidad de Fomento; CLF 1 = CLP 37,390 as of 23 May 2024.

[35] (1) Definitions apply for non-primary industry (i.e., excluding agriculture, forestry, and fisheries); (2) "Enterprises" refers to companies and sole proprietorships. Companies refer to joint-stock companies, limited companies, mutual companies, general partnership companies, limited partnership companies, limited liability companies, limited liability companies, and foreign companies.

		<5			Commercial trade and services industries
	SME	<300		< JPY 300,000,000	Manufacturing, construction, transportation, or any other category of business
		<100		< JPY 100,000,000	Wholesale trade
		<100		< JPY 500,000,000	Service industry
		<50		< JPY 50,000,000	Retail trade
Korea	Micro	0-9	Varies by sector		
	Small		KRW 1 - 12 billion		
	Medium		KRW 40 - 150 billion		
Malaysia	Micro	<5	< MYR 300000		
	Small	<74	< MYR 15 million		Manufacturing
		<30	< MYR 3 million		Service and other
	Medium	75-200	< MYR 50 million		Manufacturing
		30-75	< MYR 20 million		Service and other
Mexico	Micro	0-10			
	SME	11-250			
	Large	>250			
New Zealand	Micro	1-5			
	Small	6-19			
	Medium	20-49			
	Large	>50			
Papua New Guinea	Micro	<10	< PGK 60,000	< PGK 250,000	
	Small	10-50	< PGK 250,000	< PGK 1,000,000	
	Medium	51-100	< PGK 5,000,000	< PGK 10,000,000	
Peru	Micro	0-10			
	Small	11-100			
	Medium	101-250			
The Philippines	Micro	1-9		<PHP 3,000,000	
	Small	10-99		PHP 3,000,001 – PHP 15,000,000	
	Medium	100-199		PHP 15,000,001 – PHP 100,000,000	
	Large	>200		>PHP 100,000,000	

Russia	Micro	0-15	> RUR 120 million		
	Small	16-100	> RUR 800 million		
	Medium	101-250	> RUR 2,000 million		
		101-1500			Hotels and catering establishments
Singapore	SME	<200	< SGD 100 million		
Chinese Taipei	SME	<200		< TWD 100 million	
Thailand	Micro	<5	< THB 1.8 million		Manufacturing, trade, and services
	Small	<50	< THB 100 million		Manufacturing
		<30	< THB 50 million		Trade and services
	Medium	<200	< THB 500 million		Manufacturing
		<100	< THB 300 million		Trade and services
United States	SME	< 500			Manufacturing
		< 500	< USD 7 million		Exporting service firms
		< 500	< USD 250,000		Farms
Viet Nam	Micro	0-10	< VND 3 billion	< VND 3 billion	Agriculture, forestry, fishing, industry, and construction
		0-10	< VND 10 billion	< VND 3 billion	Trade and services
	Small	11-100	< VND 50 billion	< VND 20 billion	Agriculture, forestry, fishing, industry, and construction
		11-50	< VND 100 billion	< VND 50 billion	Trade and services
	Medium	101-200	< VND 300 billion	< VND 100 billion	Agriculture, forestry, fishing, industry, and construction
		51-100	< VND 300 billion	< VND 100 billion	Trade and services

APPENDIX 2: DATA SOURCES

Economy	Sources
Australia	Australian Bureau of Statistics (ABS): Counts of Australian Businesses, including Entries and Exits July 2019 - June 2023
	ABS: Australian Industry, 2022-23
	ABS: Census Tablebuilder 2021
	ABS: Characteristics of Australian Exporters, 2019-20
	ABS: Estimated Resident Population, June 2023
Brunei Darussalam	Annual Census of Enterprises 2023
Canada	Statistics Canada: Canadian Business Counts, with employees, June 2023
	Innovation, Science and Economic Development Canada (ISED): Key Small Business Statistics 2023
Chile	Unidad de Estudios División de Política Comercial e Industrial: Síntesis de resultados EME-VII
	Unidad de Estudios División Política Comercial e Industrial: Boletín Análisis descriptivo del impacto de la pandemia sobre las empresas en Chile
China	Gov.cn: Notice on the Issuance of Standards for the Classification of Small and Medium-Sized Enterprises (2011)
Hong Kong, China	Support and Consultation Centre for Small and Medium Enterprises of Hong Kong, China
	Census and Statistics Department of Hong Kong, China
Indonesia	Badan Pusat Statistik: Statistik Karakteristik Usaha 2022/2023
	Asian Development Bank (ADB) Asia SME Monitor 2023
Japan	MIC, 2014 Economic Census for Business Frame; Recompiled from MIC, METI, 2016 and 2021 Economic Census for Business Activity
Korea	Online statistics tables (MSS)
	2023 SME Export Trends
Malaysia	SME Corporation Malaysia: MSME Performance in 2022
	SME Corporation Malaysia: Economic Performance and Outlook 2021
Mexico	Censos 2019 Economicos
	Survey on Productivity and Competitiveness of Micro, Small and Medium Enterprises (ENAPROCE) 2018.
New Zealand	Stats NZ Tatauranga Aotearoa: New Zealand Business Demography Statistics
	Small Business in 2022
Papua New Guinea	
Peru	Las MIPYME en cifras 2022
The Philippines	2022 Philippine MSME Statistics
	Gov.ph: Open Data Portal
Russia	Russian Statistical Yearbook 2023
	Federal Tax Service
	World Bank - Expanding Access to Financing for MSMEs in Russia by Leveraging Innovative Financial Solutions

Singapore	Singapore Department of Statistics (DOS): Enterprise Landscape by SMEs And Non-SMEs
Chinese Taipei	Small and Medium Enterprise and Startup Administration: SME Statistics in 2022
Thailand	The Office of Small and Medium Enterprises Promotion: Annual Report 2021
	The Office of Small and Medium Enterprises Promotion: MSME Situation Report 2023
United States	US Small Business Administration: 2023 Small Business Profile
Viet Nam	Statistical Yearbook of Viet Nam 2022
	General Statistics Office online database
	SME Sector and the EVFTA: A Reader Prepared for Roundtable Series On EVFTA, EVIPA And Post-Covid-19 Economic Recovery in Vietnam

APPENDIX 3: RFI QUESTIONNAIRE

Small and Medium Enterprises Working Group (SMEWG)
Enhancing MSME Data Interoperability in the APEC Region
Request for Information

Greetings from the SMEWG Chair and the APEC Policy Support Unit (PSU)! In July 2023, the SMEWG and PSU initiated the study on "Enhancing MSME Data Interoperability in the APEC Region" to identify challenges, find opportunities, and propose recommendations to improve MSME data compatibility and interoperability around the region. As part of the data collection and update activities under the study, this Request for Information (RFI) questionnaire is sent to SMEWG members.

This questionnaire is designed to help us gain an understanding of the MSME data environment in your economy. It will also help us identify requirements and possible opportunities for regional cooperation and capacity building on MSME statistics. Your economy's responses will be crucial to the success of this study.

Who should answer this questionnaire: The ideal respondent for this RFI is someone who works directly with MSME statistical data gathering, collating, processing, and/or analysis. A colleague from the MSME agency's statistical or research unit, or an expert from the economy's statistical agency specialising in MSME data would be a suitable respondent.

All raw information provided will be confidential and visible only to the PSU. Professional contact information is requested to enable follow-up or clarification, if needed.

One consolidated response is needed and expected per economy, submitted through the economy's SMEWG representative. Please send the economy's response to the PSU at eas14@apec.org and gnav@apec.org. We would appreciate receiving your response by **15 February 2024**.

For any questions or clarifications, please contact Emmanuel A. San Andres (eas14@apec.org) and Glacer Niño A. Vasquez (gnav@apec.org). Thank you.

Respondent Information		
Economy:		
Ministry/Office/Bureau:		
Name(s):	1.	
	2.	
	3.	
Position(s)/Designation(s):	1.	
	2.	
	3.	
	1.	

Email(s): *for follow-up questions or clarifications*	2. 3.	

Q1. What are the main sources of data on MSMEs for your economy? Please tick all that apply:

- ☐ Regular business or firm-level surveys or census
  - How often are these regular surveys/censuses conducted?
    - ☐ Annual
    - ☐ Quarterly
    - ☐ Monthly
    - ☐ Other, please specify:
- ☐ Ad-hoc/occasional business or firm-level surveys or studies
  - When was the last survey or study conducted?
  - Are there plans for a follow-up survey or study?
- ☐ Administrative data (e.g., business permits or registration, tax mapping, etc.)
  - Please specify:
- ☐ Household- or individual-level survey (e.g., family income survey, labour force survey, etc.)
  - Please specify:
- ☐ Trade documents (e.g., bill of lading, waybill, customs declarations, trade licenses, etc.)
  - Please specify:
- ☐ Other data sources
  - Please specify:

Q1.1 If more than one data source is used: Do you link/merge information across the various sources?

☐ Yes ☐ No

Q1.2 Does your economy include firms with zero employees (e.g., self-employed persons) as part of your collection of statistics on MSMEs?

☐ Yes ☐ No

Q2. What types of information do you gather on MSMEs? Please tick all that apply:

- ☐ Number of employees
- ☐ Annual/monthly sales, revenue or turnover
- ☐ Annual profits/loss
- ☐ Location
  - Do you classify according to urban or rural/remote areas?
    - ☐ Yes ☐ No
- ☐ Industrial sector or type of business
  - Do you use International Standard Industrial Classification (ISIC) codes?
    - ☐ Yes ☐ No

- [ ] Use of digital technology
- [ ] Greenhouse gas and/or carbon dioxide emissions
- [ ] Compliance with Environmental, Social and Governance (ESG) standards
- [ ] Others, please specify:

Q3. Do your MSME data identify MSMEs that are women-owned or -operated?

- [ ] Yes
  - How does your economy define a woman-owned or -operated MSME?
  - From which data source identified in Q1 do you gather data on women-owned or -operated MSMEs?
  - Do you regularly report on the performance of women-owned or -operated MSMEs?
- [ ] No

Note for Q4 and Q8: *People with "untapped economic potential" include Indigenous Peoples, people with disabilities, those from remote and rural communities or other economically disadvantaged groups as may be applicable to your economy.*

Q4. Do your MSME data identify MSMEs that are owned or operated by people with untapped economic potential?

- [ ] Yes
  - Which group(s) of people with untapped economic potential do(es) your MSME data identify?
  - How does your economy define an MSME that is owned or operated by people with untapped economic potential?
  - From which data source identified in Q1 do you gather data on MSMEs that are owned or operated by people with untapped economic potential?
  - Do you regularly report on the performance of MSMEs that are owned or operated by people with untapped economic potential?
- [ ] No

Q5. Does your economy monitor and measure the trading (i.e., export or import of merchandise) activities of MSMEs?

- [ ] Q5 Yes
  - What data on trading by MSMEs do you monitor and measure? Please tick all that apply.
    - [ ] Exports/Imports value
    - [ ] Share of MSMEs that export/import
    - [ ] Number of MSME exporters/importers
  - From which data source identified in Q1 do you gather data on MSMEs' trading activities?
  - Where do you report/publish information on trading activities of MSMEs (please include relevant links)?
- [ ] Q5 No

Q6. Does your economy monitor and measure the imports/exports of commercial services by MSMEs?

☐ Yes

What data on imports/exports of commercial services by MSMEs do you monitor and measure? Please tick all that apply.

- ☐ Mode of supply of commercial services exports
- ☐ Services imports/exports value
- ☐ Share of MSMEs that import/export commercial services
- ☐ Number of MSME service importers/exporters

From which data source identified in Q1 do you gather data on MSMEs' commercial services imports/exports?	
Where do you report/publish information on imports/exports of commercial services of MSMEs (please include relevant links)?	

☐ No

Note for Q7-Q9: *In 2020, the APEC Policy Support Unit working with SMEWG published the report on "Overview of the SME Sector in the APEC Region: Key Issues on Market Access and Internationalization (PSU 2020)" which discussed existing definitions and data on MSMEs as of April 2020. The following questions are a follow-up to that report.*

Q7. Between 2020 and the current period, did your economy change the definition or criteria for classifying a firm as an MSME? ["No" means that the MSME definitions in Table 1 and Appendix 1 of the PSU 2020 report are still valid and in force.]

☐ Yes

What is the new definition of an MSME for your economy?	
When did your economy revise this definition?	
What was the reason behind the change in definition?	
Please provide links to any relevant laws or regulations:	

☐ No

Q8. Based on your economy's current definitions of MSMEs and latest available data, please provide the following information, if available (please specify year):

	Value	Year
Total number of MSMEs:		
MSMEs as a share of all firms (in %):		
Number of people employed in MSMEs:		
Employment in MSMEs as a share of total employment (in %):		
Contribution of MSMEs to the total GDP (in %):		
Share of MSMEs that export merchandise or commercial services (in %):		
Share of total exports by MSMEs (in %):		
Share of MSMEs that import merchandise or commercial services (in %):		
Share of total imports by MSMEs (in %):		

Q9. [SKIP IF "NO" IN Q3] Based on your economy's current definitions of MSMEs and latest available data, please provide the following information on <u>women-owned or -operated MSMEs</u>, if available (please specify year):

	Value	Year
Total number of women-owned or -operated MSMEs:		
Women-owned or -operated MSMEs as a share of all MSMEs (in %):		
Number of people employed by women-owned or -operated MSMEs:		
Employment in women-owned or -operated MSMEs as a share of total employment in MSMEs (in %):		
Contribution of women-owned or -operated MSMEs to the total GDP (in %):		
Share of women-owned or -operated MSMEs that export merchandise or commercial services (in %):		
Share of total exports by women-owned or -operated MSMEs (in %):		
Share of women-owned or -operated MSMEs that import merchandise or commercial services (in %):		
Share of total imports by women-owned or -operated MSMEs (in %):		

Q10. [SKIP IF "NO" IN Q4] Based on your economy's current definitions of MSMEs and latest available data, please provide the following information on <u>MSMEs owned or operated by people with untapped economic potential</u>, if available (please specify year):

	Value	Year
Total number of MSMEs owned or operated by people with untapped economic potential:		
MSMEs owned or operated by people with untapped economic potential as a share of all MSMEs (in %):		
Number of people employed by MSMEs owned or operated by people with untapped economic potential:		
Employment in MSMEs owned or operated by people with untapped economic potential as a share of total employment in MSMEs (in %):		
Contribution of MSMEs owned or operated by people with untapped economic potential to the total GDP (in %):		
Share of MSMEs owned or operated by people with untapped economic potential that export merchandise or commercial services (in %):		
Share of total exports by MSMEs owned or operated by people with untapped economic potential (in %):		
Share of MSMEs owned or operated by people with untapped economic potential that import merchandise or commercial services (in %):		
Share of total imports by MSMEs owned or operated by people with untapped economic potential (in %):		

Please list your economy's most important/comprehensive latest publicly available reports or data on MSMEs (please include relevant links):

1.
2.

3.	
4.	
5.	

Thank you very much for your support and cooperation. Your answers will contribute significantly to the interoperability of MSMEs data in the APEC region.