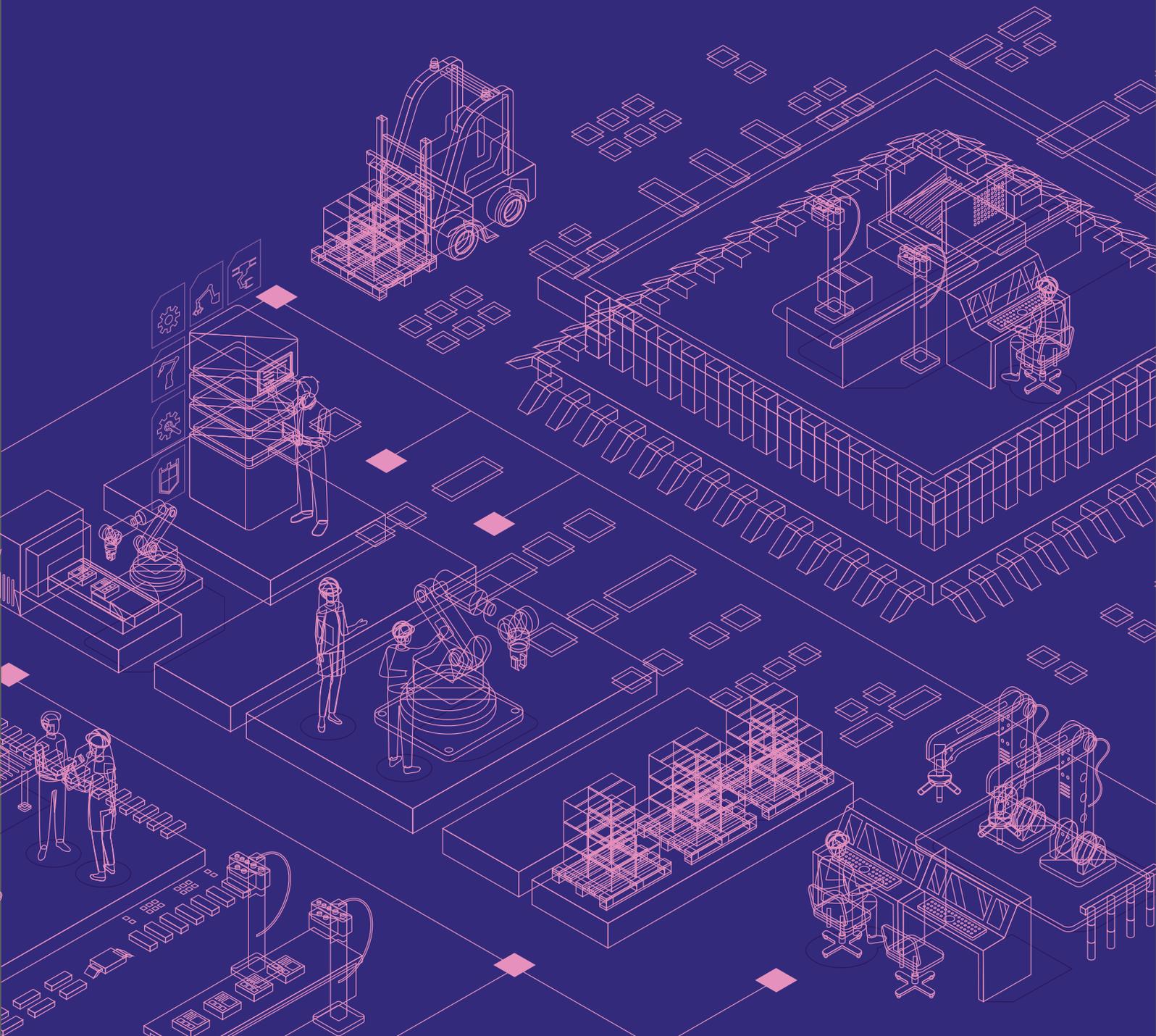




# Responsible Supply Chains in Asia: The Electronics Sector in Japan



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# **Responsible Supply Chains in Asia: The Electronics Sector in Japan**

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# Foreword

Through analysis of relevant data and information, this report generates an in-depth understanding of employment and labour issues in the electronics sector in Asian countries where Japanese multinational enterprises (MNEs) have their operation and/or sourcing. Special attention is paid to the roles that MNEs can play in promoting and implementing socially responsible labour practices along their supply chains, in line with the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (ILO MNE Declaration).

Responsible Business Conduct, in particular aspects that relate to good labour practices, is increasingly a competitive factor used by companies to differentiate their products and/or services. There is also an increasing expectation from consumers, States, trade unions and civil society organisations (CSO) for companies to implement due diligence along their supply chains to identify, prevent and mitigate challenges related to the implementation of socially responsible labour practices.

This research, conducted through a series of interviews to companies in the electronics sector, collected and analysed information on good practices in terms of the implementation of socially responsible labour practices. The purpose of the research is to share the knowledge generated, as well as the good practices themselves, with other enterprises and relevant actors in the electronics and other sectors. It aims to promote peer learning in terms of responsible business practices, raise the awareness on the relevance of these practices for the sustainability and competitiveness of

businesses and their supply chains, and thereby promote decent work. In selecting cases to be analysed, this document considered practices within enterprises as well as in their relations with third-party suppliers, highlighting the relevance of engagement and social dialogue along global supply chains to promote good and sustainable labour practices. This report emphasises that good businesses practices which aim at improving working conditions and/or upgrading skills of workers have a positive impact in the performance of companies, increasing competitiveness and collective efficiency in the supply chain, benefiting both employers and workers. The report used as a framework for the analysis the principles of the ILO MNE Declaration, an ILO instrument which reflects tripartite consensus on how enterprises can best contribute to socio-economic development, Decent Work and social upgrading.

This report has been an outcome of a process of engagement with Japanese enterprises operating in the electronics sector as well as their industrial body -The Japan Electronics and Information Technology Industries Association (JEITA)- and other relevant stakeholders. At the same time, this study has been an input for a tripartite plus dialogue at the national level during which the findings and recommendations were discussed with relevant public and private actors. The ILO will continue to encourage dialogue among all stakeholders to accelerate socially responsible labour practices of MNEs, in Japan as well as through the region involving public and private actors in both home and host countries to multinational enterprises.

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This study was funded by the European Union, as part of the Responsible Supply Chains in Asia (RSCA) programme which aims to promote responsible business practices into the operations of MNEs in six countries in Asia: Japan, China, Viet Nam, Thailand, Philippines and Myanmar. In Japan, the RSCA programme is working to share lessons and disseminate good practices among multinational companies with supply chains in the electronic and vehicle parts industries.

# Executive summary

## Overview

This research has been developed in the context of the “Responsible Supply Chains in Asia” Programme, a partnership between the European Union (EU), the International Labour Organization (ILO) and the Organisation for Economic Co-operation and Development (OECD), with the objective of furthering sustainable and inclusive economic, social and environmental progress by integrating responsible business practices into the operations of multinational companies and their supply chains.

This report focuses on business practices of Japanese electronics companies that operate extensive global supply chains (GSCs) in Asia from a social responsibility point of view. For the purposes of this document Socially responsible business practices are defined as business and employment strategies that are in line with the recommendations of the International Labour Organization’s (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration). It discusses the concomitant challenges the industry faces within GSCs, and highlights good practices of these multinational enterprises (MNEs) from the perspective of aligning competitiveness and decent working conditions in these complex chains. As such, this report does not deal with auxiliary, non-core activities such as philanthropic and community outreach programs, but is solely devoted to analyzing practices that constitute core strategies relating directly to each of the company’s business domains.

The report firstly provides an overview of how GSCs have evolved using key terms including fragmentation dynamics and product architecture (integral and modular). Then it summarizes the current situation of the Japanese electronics industry in the global economy, and how its position with regards to different electronics products have changed over time, in order to give a clear perspective of the challenges and the context where they take place. The electronics industry entails a highly diverse set of goods (both intermediate and final), which is reflected

in Japan’s different relationships with the rest of Asia. It finally highlights cases of good practices in both intra- and interfirm relationships within GSCs.

The key message of this research is that business practices compatible with decent working conditions are highly correlated with competitiveness and business performance. The report is primarily concerned with collecting such practices that illustrates the compatibility of promoting Decent Work and competitiveness. Based on this, it focuses on highlighting self-enforcing, sustainable business strategies of MNEs in the electronics industry.

The report is based on primary information obtained through interviews conducted to Japanese MNEs at their headquarters in Japan, or through the Internet with FDI units in countries such as China, Vietnam, Thailand and the Philippines. The interviews were arranged by Japan Electronics and Information Technology Industries Association (JEITA), and conducted during January to March and in September of 2019.

## The electronics sector and global supply chains

The global economy of the 21<sup>st</sup> century can be characterized by the evolving GSCs; production processes once integrated within boundaries of enterprises and countries are now “fragmented” into different production blocks and relocated across borders, forming complex and extensive international production and distribution networks. Given this, the report makes a clear distinction in the relationships between the different units that undertake the fragmented processes/functions in GSCs, as follows.

The first is the relationship between the headquarters of MNEs in Japan and their own affiliates operating in offshore locations (Foreign Direct Investment (FDI) units) in Asia. This is essentially an *intrafirm* relationship, and the primary issue would be on internal human resource management issues, including the

provision of good employment conditions such as clean and hazard-free working environments and training opportunities, among others.

The second is the relationship between the Japanese MNEs (or their local FDI units) and independent local firms in Asia that supply parts and components to these Japanese enterprises. One of the main issues in this *interfirm* relationship is related to technology transfer from the Japanese MNE. Because technology is among the key determinants of productivity, the extent of technology transfer typically has a significant impact on both the quantity and quality of work, which would further affect employment and working conditions at those local firms.

The emergence of such GSCs have fundamentally changed the sources of competitiveness on which enterprise strategies would be built; competitiveness and enterprise performance are no longer determined just on their own internal resources and technical capability. Rather, they are also increasingly realized through maximizing *collective efficiency* of the entire chain, where competitiveness of own business units in offshore locations (FDI units) and non-equity based interfirm relationships (outsourcing) matter significantly.

## Diversity within the Industry

The term “electronics industry” is rather elusive as a subject for technical analysis as it entails a wide variety of products which could be positioned at different stages of the electronics value chain – from semiconductors to electrical machineries and air conditioners. The enterprises that cater for the production of these products are diverse as well.

The actual forms of GSCs are dependent on the particular electronic products, where the type of its product architecture (integral or modular) is a key determinant. An *integral* product architecture is where the parts and components are tailor-made for a particular final product. The development of new products typically occurs through close collaboration between set-makers and its key parts and component suppliers, where R&D activities as well as bulk production is undertaken through joint-collaborative efforts. The *modular* product architecture, on the other hand, are less dependent on specific interfirm relationships, as

the parts and components have standardized interfaces and are not specific to a particular final product.

Differences in product architecture determine the governance structures that connect the fragmented processes and functions catered by different enterprises in different locations. Recognizing these differences is important as they essentially define leverage points of leading MNEs’ strategies to influence employment practices of their own FDI units in offshore locations as well as other enterprises (suppliers) in the chain. Good practices should therefore be interpreted in relation to the differences of chain structures which forms are dependent on those technological attributes.

## Employment and competitiveness in GSCs

In GSCs, employment is the primary foundation on which collective efficiency can be built. Employment issues in this context mainly relate to strategies with respect to (1) attract and retain workers with the skills needed, and (2) empower workers through the development of up-to-date skills and knowledge. GSCs are efficient and sustainable when all FDI units and suppliers are competitive in their respective functional areas. This is, however not promised nor an automatic process. It requires significant technological transfer and training through both (1) intra-firm relationships in own business establishments in Asia (**offshoring**), and (2) interfirm relationships with local suppliers (**outsourcing**).

### (1) Offshoring: internal management and employment issues of FDI-units

The ability to attract good workers and retain them in each of the enterprise’s FDI-unit is key. Enterprises are in constant competition for workers particularly in a context where new jobs in service sectors are emerging and wage levels increasing. As such, offering good working conditions and providing opportunities to increase skills and knowledge are fundamental components of corporate strategies. Specific issues include human resource (HR) management and capacity building practices of the workers.

HR management practices determine working conditions of each of the workers, and as such are the main frameworks through which workers incentives are shaped. Within this, effective dialogue mechanisms between employers and workers, both at formal and informal bases, are crucial to design sustainable HR management practices. Capacity building of workers is also important because this is what drives internal efficiency improvements. In-house training and skill transfer programs, such as on the job training schemes at HQs in MNEs' home countries will become important.

## (2) Outsourcing: external management and employment issues with local suppliers

Strategies pertinent to outsourcing relationships become much more difficult, simply as lead-enterprises (Japanese MNEs) do not have direct control over key leverage points of their suppliers, especially on employment and human resource management issues. However, as lead-enterprises tend to be in a disproportionately stronger position than local suppliers, they can nevertheless influence their business practices through multiple entry points.

Among them are the contracts in interfirm relationships, which are strongly influenced by product architecture. Issues pertinent to employment in this context primarily relate to building and upgrading of skills through interfirm-technological transfer.

## *De-jure* approaches: regulatory frameworks, codes of conduct, and compliance

Enterprise strategies are also influenced by the regulatory framework in which they operate, as they shape business incentives and strategies. Regulatory frameworks are powerful tools to ensure responsible behavior of enterprises through compliance. Such approaches, which are essentially rule-enforcement based, are referred to as "*de-jure*" approaches in this report. One of the most important rules relevant to this context is the labor code.

Private regulations, such as Codes of Conducts (CoCs) are also effective in ensuring responsible behavior of enterprises. Most of the electronics MNEs have already institutionalized their own CoC, of which quite a few are based on the one established by the Responsible Business Alliance (RBA). Buyers increasingly demand their suppliers to abide by the standards as stipulated by the CoC of RBA.

These "*de-jure*" based mechanisms, both public and private, are certainly key components to ensure responsible enterprise behavior in the electronics supply chains. Institutional frameworks shape private incentives, and as such are important to understand why specific enterprise strategies are formulated as they are.

## *De-facto* approaches: self-enforcing and responsible business strategies

Socially responsible business practices can be embedded in pure business strategies, however, even without explicit rules designed to ensure responsibility. These types of enterprise behavior are self-enforcing precisely because they emerge from profit maximization motivations. We will refer to such mechanisms as "*de-facto*" based. "*De-jure*" and "*de-facto*" approaches are not substitutes, but in many cases are mutually reinforcing and exhibit strong complementarity.

This paper is concerned with highlighting good "*de-facto*" practices of Japanese electronics MNEs in responsible business and employment strategies in supply chain management, particularly in both their FDI units (offshoring) and with their suppliers (outsourcing) relationships.

## Good practices

### 1. Offshoring (FDI): Internal issues

#### 1.1 Training and skills development

Development of skills and knowledge of workers is one of the most effective means to ensure win-win outcomes for workers and enterprises, and have been regarded as key by all of the electronics MNEs interviewed. Typical training schemes involve tailored programs that are directly relevant to operation processes, which can take place at

the FDI-unit or in HQs in Japan. Local training at Japanese electronics MNEs typically address issues such as 5S (a workplace organization method, which aims to make workplaces more organized, safe, clean and efficient), Quality Control (QC), and Just-in-Time (JIT) systems.

### 1.2 Objective and transparent HR policy

HR policies were considered as key to attract and retain workers. A common feature of successful HR management practice was to ensure both objectivity and transparency of performance appraisals. Objective rules for performance appraisals are important because it will promote fair practices, and having transparent procedures is also crucial especially in relation to promotion. These practices will provide clear prospects for career building to all workers, which is less discriminatory in terms of age, sex, or other personal backgrounds.

### 1.3 Improvements in general working environments

Improvements in general working environments also affect enterprises' ability to recruit and retain workers. Worker turnover rates may be affected by business cycle trends, but satisfaction in general working environments seem to have direct effects in determining worker turnover.

### 1.4 Dialogue

All of the good practices are underpinned by trust established between the management of the FDI-units, local workers, and HQs. The only way to achieve this is through dialogue. Such dialogue do not exclusively refer to formal mechanisms such as collective bargaining where employers and workers typically meet only once a year. Equally important are the more informal and casual communication that take place regularly at work.

## 2. Outsourcing: External issues

### 2.1 Capacity building of suppliers – technology transfer

Technology transfer to local enterprises is no doubt directly compatible with enhancing collective efficiency. From a development perspective, technological transfer from MNEs is crucial for inclusive supply chains as backward linkages<sup>1</sup> with local companies will generate employment, reduce poverty, and promote local economic development. The transfer of advanced technology, knowledge and skills typically happen through regular consultations through interfirm relationships, leading to self-enforcing, mutually beneficial solutions.

### 2.2 Capacity building of suppliers – management issues

Issues that are not directly related to production technology, such as socially responsible HR management strategies, are also important assets that can be transferred to local enterprises. Stable operation of suppliers is the cornerstone for collective efficiency. The bulk of operational instability and disruptions of production at local suppliers are due to labor disputes. This will have serious consequences as it will disrupt and stop production flow throughout the supply chain, including its own factories.

### 2.3 Standards and partnerships

*De-jure* based practices (standards) complement *de-facto* practices, and several good examples have been identified from the interviews. Standards, accreditation and certifications have been used to directly screen suppliers, or ensure responsible practices of suppliers. Sometimes these have been imposed as minimum requirements upon local suppliers, at the request from final set-makers and assemblers. Good practices usually involve follow-ups by MNEs in forms such as capacity building and audits.

1 Backward linkages denote inter/intra-sectoral procurement relationships of intermediate inputs. For example, the procurement of parts and components by an enterprise that assemble electronics products is one form of backward linkages in the electronics industry. Such backward linkages could be organized internationally as well as locally.

## 2.4 Social dialogue

JEITA's role has been perceived as crucial in setting agendas for social dialogue, by frontloading social responsibility issues in business discussions. It is at a vantage point in terms of information sharing on global trends as well as on relevant good practices in relation to Decent Work, or Sustainable Development Goals (SDGs), more broadly. This is an important and valuable platform infrastructure that can connect enterprises beyond private and competing goals. Common frameworks provided by JEITA, such as its Supply-Chain CSR Deployment Guidebook (CSR Guidelines) are helpful.

The spread of GSCs have also presented new challenges in terms of effective social dialogue mechanisms. Production processes have spread across borders involving different enterprises through different contractual and governance relationships. As such, the traditional tripartite structure involving workers, employers and government within the national framework is seriously constrained to discuss issues and implement policies that are relevant in the context of GSCs. As such, an extended "tripartite-plus" platform is needed which encompass and involve stakeholders beyond the traditional, national-based tripartite structure of host-countries, to include MNEs and their HQs in home-countries. Home-host dialogue, as suggested in the ILO's MNE Declaration, must be embedded in such structures.

## 3. Recommendations

### 3.1 Designing and implementing tripartite plus mechanisms through open platforms for enhanced social dialogue

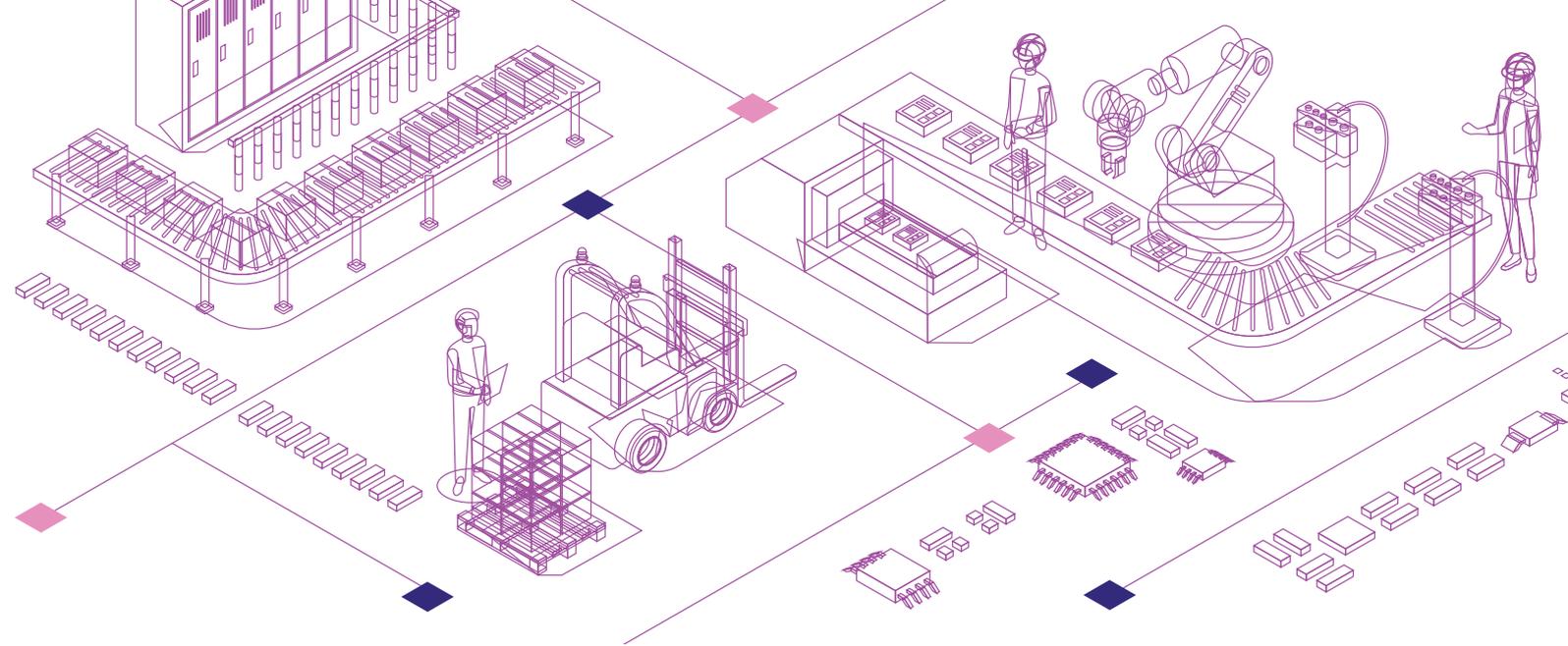
One of the issues raised by several electronics MNEs was that increased opportunities to share and discuss good practices would be helpful to further implement responsible management strategies in supply chains. In connection to this, it was also mentioned that a commonly accepted set of practical guidelines, that go beyond concepts would also be helpful for future strategy planning.

### 3.2 Policy support

Because of the significant positive externalities that responsible corporate conducts have on local economies in which supply chains operate, both host and home governments can play catalyst roles by providing additional incentives to enterprises that conduct such good business practices. In this, inter-ministerial coordination would be necessary. Such discussions may be effective if an active tripartite-plus structure would be in place.

### 3.3 MNE Declaration

The ILO's MNE Declaration could, in the future, better reflect some of the concerns raised in this paper in terms of the challenges associated with GSCs. One of such is related to the relationships of MNEs with offshore suppliers, which constitute the majority of governance relationships in contemporary GSCs. This is not necessarily well articulated in the present version of the MNE Declaration. Another is enhanced publicity of the Declaration itself, through better information dissemination with concrete action guidelines that are in line with the Declaration.



## Introduction

Upon the unanimous adoption of the Sustainable Development Goals (SDGs) at the United Nations General Assembly in 2015, Japan has been at the forefront of promoting this by encouraging its mainstreaming into literally every sectors of the society. Prime Minister Abe has established the “SDGs Promotion Headquarters” in his Cabinet in May 2016, and Keidanren (Japan Business Federation) has revised its Charter of Corporate Behavior by frontloading SDGs explicitly as its key guiding principles in 2017.

Enterprises in Japan have started to identify potential linkages of their businesses to each of the 17 Goals, however challenges still remain on how to further operationalize these into actual corporate practices. The concomitant challenges are especially significant in global supply chains that span across corporate and national boundaries. Electronics is one of such sectors in which production and distribution are organized through these complex global production systems. This report will provide insights and practical implications on the evolving issues in relation to this industry, with a particular emphasis on Goal 8 (Decent Work and Economic Growth).

### Overview

This report is part of the “Responsible Supply Chains in Asia” Project, funded by the European Union (EU). The Project is executed jointly by the International Labour Organization (ILO) and the Organisation for Economic Co-operation and Development (OECD). The Project covers six target

countries, each with two or three designated focus sectors. These include China (Electronics and Textiles), Japan (Electronics and Automobile parts), Myanmar (Seafood and Agriculture), Philippines (Agriculture and Food), Thailand (Agriculture and Automobile parts), and Vietnam (Wood Processing and Seafood/Aquaculture).

Within this, this report focuses on the electronics supply chains in Asia that are coordinated by Japanese enterprises. It will highlight good practices of those Japanese electronics MNEs in promoting both Decent Work and competitiveness throughout these supply chains. Corporate Social Responsibility (CSR) and Responsible Business Conduct (RBC) have become major components for business sustainability. The key is to ensure that economic and social goals are aligned in employment and business strategies.

It would be important to firstly clarify what we mean by “social responsibility.” Most of the major enterprises in Japan, including those in the electronics sector, publish “CSR Reports,” or more recently “Integrated Reports” or “Sustainability Reports.” These are comprehensive documents that contain separate sections on annual business activities and those that deal more specifically with “social” issues. Such social issues could include activities such as tree planting to conserve the environment or voluntary donations to support natural disaster recovery. In addition to being pro-social, these practices will also foster better relationships with the local communities in which they operate, and would also help establishing good reputation of the enterprises.

Philanthropic and community outreach programs such as these are intrinsically good and should be encouraged. However, they are not the primary focus of our analysis, unless they directly relate to their respective business domains and are the key sources of competitiveness of the enterprises. This report rather focuses on labor and business practices that constitute core strategies in the daily business operations of these MNEs, which are compatible with socially responsible business conduct. In other words, the focus of this report is not in secondary, non-core activities from which resources will be diverted away in times of business downswings. This distinction would be important particularly from the perspective of business sustainability.

The good practices introduced in this paper are based on primary information obtained through interviews conducted to Japanese electronics MNEs at their headquarters in Japan or at overseas FDI units in countries such as China, Vietnam, Thailand and the Philippines through the internet. As such, most of the information pertain to relevant practices related to employment and capacity building of workers both in their own FDI units and local suppliers, given their particular business challenges. By research design, such an approach inevitably limits the collection of information on “decent work deficits” in each of these functional nodes in the electronics global supply chains from a workers’ perspective. This is one of the main limitations of this report.

The challenges highlighted in this report, therefore, do not necessarily relate to (or are framed as) such possible deficits, but reflect the more generic managerial and strategic challenges that are often seen as critical bottlenecks for sustained business growth in global supply chains within the newly emerging business environment. The point is that employment and skills related business practices that focuses on working conditions will also positively influence enterprise performance through the competitiveness channel. In other words, this paper is concerned with collecting such practices that illustrates the compatibility of decent working practices and competitiveness enhancing, that do not necessarily evolve from the decent work deficit perspective including compliance. Such a viewpoint should highlight

self-enforcing, sustainable business strategies for MNEs in the electronics industry, which is fully compatible with SDG 8 while compliance and enforcement mechanisms also play a key role to promote decent work in global supply chains.

## The industrial dynamics of the electronics sector

The Japanese electronics sector has been going through drastic structural transformation in the last couple of decades. The sector was once Japan’s leading industry spearheading its ascendance into the global economy. The transistor radio was one of such products, in which exports to the US through Original Equipment Manufacturing (OEM) contracts were particularly crucial. Japanese electronic products with original brand-names gradually started to penetrate into literally every market across the world. By the end of the twentieth century, they have earned a solid reputation for quality and reliability.

Significant changes have happened since. The Japanese electronics industry is now facing serious challenges from neighboring economies including Korea, Taiwan, and China. Japan still retains leading positions in some of the key sub-sectors globally, however in others such as home appliances (or “white-goods”), personal computers, and communication devices including mobile and smart phones, the industry is struggling to keep up with competition from peers in the region.

The underlying factors that contributed to this industrial upheaval were the evolving global supply chains (GSCs) and the fundamental technological changes that occurred in product architecture. All of these unfolded within a very short timeframe, significantly altering the global industrial landscape of the electronics sector. New players have evolved from emerging economies, and Asia is at the forefront of this dynamism.

When Japan started to regain a strong foothold in the global economy in the 1960s, particularly through the export of electronic products, most of the production processes took place in Japan. The sources of competitiveness, such as the production technology and product development capabilities, were generated and accumulated internally.

Interfirm relationships that underpinned dynamic competitiveness of the sector were organized tightly, where crucial information related to research and development (R&D) were exchanged within closed and integrated structures, typically between final set-makers and parts-component suppliers.

Fast-forward to the twenty-first century - the rapid diffusion of the internet and related applications have changed the way production of nearly everything is organized. Production processes once integrated within boundaries of enterprises and countries are now “fragmented” into different production blocks. The production of industrial goods typically entails various types of processes and tasks with different technological attributes, some of which can be highly labor intensive while others more intensive in capital or knowledge. When variation in factor intensity across the production process is significant, it becomes rational to optimize the entire process by externalizing some of the fragmented production blocks in which home enterprises do not possess comparative advantages. The result is the proliferation of supply chains that have extensive geographical coverages, incorporating different economic actors with diverse technological backgrounds.

The emergence of such GSCs accompanied fundamental changes in the sources of competitiveness. Enterprise competitiveness are no longer determined just on their own internal resources and technical capability. Rather, they are also increasingly realized through maximizing *collective efficiency* of the entire chain (Schmitz, 1999). This includes own business units in offshore locations (Foreign Direct Investment, or FDI-units) and non-equity based interfirm relationships (outsourcing). The electronics sector is probably the most global in terms of how fragmentation patterns have shaped its production structure, leading to very complex supply chains. Such fragmentation has developed most intensively in Asia (Kimura and Ando, 2005).

Another major change that has occurred in this sector is the transition of its product architecture from *integral* to *modular*. An integral product architecture is where the parts and components are tailor-made for a final product of a particular set-maker (brand-owner). The development of new

products occurred through close collaboration between set-makers and its key parts and component suppliers, where R&D activities as well as bulk production is undertaken through joint-collaborative efforts. As such, the relationship between final set-makers and suppliers were highly integral along the vertical production process.

However, this has changed drastically as well. The first major manifestation was observed in the production of personal computers (PCs) in the late 80s. Most of the parts and components used in modern PCs have standardized interfaces, and are not specific to a final product of a particular set-maker or brand. Instead they have become highly modular, which do not necessarily require integrated structures for successful R&D.

This suggests that internal accumulation of technological capacity is not a sufficient condition for competitiveness – a significant proportion of it is now embedded in the interfirm structures involving suppliers of modularized parts and components. Examples of major enterprises that produce such key modular components include platform enterprises such as Intel, Microsoft and Qualcomm. This change in product architecture has had substantial impacts on the performance of the Japanese electronics sector. Moreover, these dynamics have important implications to employment issues as well, which go beyond boundaries of enterprises and national borders. Employment is now among the most crucial factors that determine enterprise competitiveness and collective efficiency in GSCs, where technological frontiers shift continuously and unpredictably.

Given this evolving context, the main objective of this report is to contextualize and outline employment and labor issues in the electronics supply chains coordinated by Japanese Multinational Enterprises (MNEs) in Asia. Understanding this evolving context is crucial because it affects how electronics supply chains are organized. Specifically, differences in product architecture determine the governance structures that connect the fragmented processes and functions catered by different enterprises in different locations. For instance, a hierarchical structure, where international division of labor are structured through FDI linkages, typically involve an integrated product architecture. The differences in supply chain organization, is essentially defines

leverages and areas where corporate strategies can influence employment practices.

Because this FDI-based structure is essentially an intra-firm transaction (offshore operation), technological transfer from home MNEs to FDI units happen typically with much higher intensity. The practical employment implication is that the promotion of decent work through implementing better work-place practices, such as fair, transparent, and progressive human resource management systems, can be more easily implemented at those local units because of direct controllability by MNE Headquarters and their relative advantages in managerial capabilities.

On the other hand, vertical international division of labor that are more based on modularized architecture do typically not require much transfer or technological know-how. In this case, an inter-firm relationship that is more market-based (arm's-length relationships) tends to evolve, which leads to complex webs of international subcontracting arrangements. The employment implication in this for MNEs that coordinate the chains is that it is more difficult to influence employment practices, precisely because of the lack of direct control over key variables on human resource management and skills upgrading. This would have significant effects on employment outcomes.

Given this, this paper specifically looks at good practices of Japanese MNEs in enhancing collective efficiency as well as improving the working conditions and generating more and better jobs, in line with the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy.

This study will also help determine existing and potential linkages between MNEs and the local Small Medium Enterprises (SMEs), good practices in their engagement, as well as challenges for fostering short and medium-term opportunities to expand and deepen local supply chains that benefit both the MNEs and the local economy in terms of social and economic upgrading and job creation.

This study is conducted in close collaboration with Japan Electronics and Information Technology Industries Association (JEITA).

## Industry characteristics

The term “electronics industry” is rather elusive as a subject for technical analysis as it entails a wide variety of products at different stages of the electronics value chain – from semiconductors to electrical machineries and air conditioners. The enterprises that cater for the production of these products are diverse as well, with consumer electronics companies on the one hand and high-tech component suppliers focusing on a specific technological niche on the other.

The sectoral boundaries have also become increasingly blurred, particularly with that of automobile parts and components, mainly because of the increasing trends in the electrification of automobiles. More and more electronics related enterprises have now established business linkages with the automobile industry, supplying electronic parts and components to car-assemblers.

From an engineering point of view, this diversity translates into difficulties of generalizing production processes and their technological attributes. This is a point that should be borne in mind when looking at the good practices. This diversity reflects the differences of how global supply chains are configured, and local economies are connected. In production processes where sharing of key technological information is crucial, this will evolve into an integrated structure where division of labor is organized between the headquarters of the MNE and its FDI unit in offshore locations. Where such information sharing is not as important, utilizing modularized components and standardized processes, then it would probably lead to non-equity based offshore subcontracting. While this paper is concerned with identifying good employment practices in intra-firm and inter-firm relationships, such heterogeneity in product architecture often define the relationships between the MNEs in developed countries (in this case Japan) and those operating in Asia. As such, the good practices should be interpreted in relation to the differences that arise from different governance structures that are determined through those technological attributes.

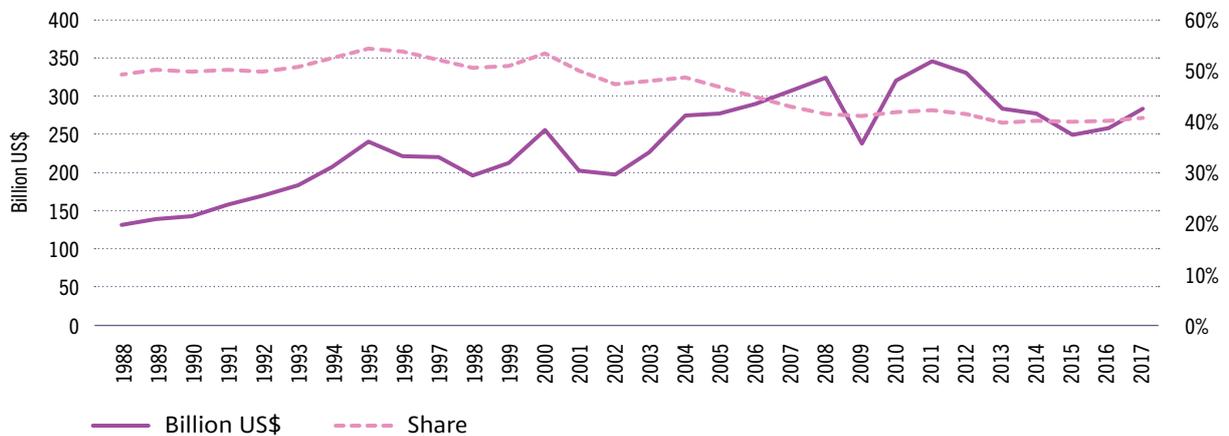
## Japan and the electronics industry

The electronics industry in Japan is significant both in terms of output and employment. In 2017, the share of the sector out of total GDP was about 6.1%, and 29.6% of manufacturing. It employed 2.7 million workers, which was 4.0% and 26.4% out of total employment and the manufacturing sector, respectively<sup>2</sup>.

It is also the largest export sector of Japan. In this paper, three sub-sectors according to the Harmonized Commodity Description and Coding System are included to define electronics; the HS

84 (Nuclear reactors, boilers, machinery, etc and parts), 85 (Electrical, electronic equipment and parts) and 90 (Optical, photo, technical, medical, etc apparatus and parts). The export value of electronic products in 2017 was 284 billion dollars, with a share of 41% out of total exports. This is exceeding the export of automobiles and related parts (HS 87) to a great extent, which was 146 billion dollars, or 20.9% of total exports in the same year. However, it would be worthwhile to note that the share of electronics in total exports has been in decline since 1995, where its share once reached a peak of 54%.

Figure 1. Japan’s electronics export



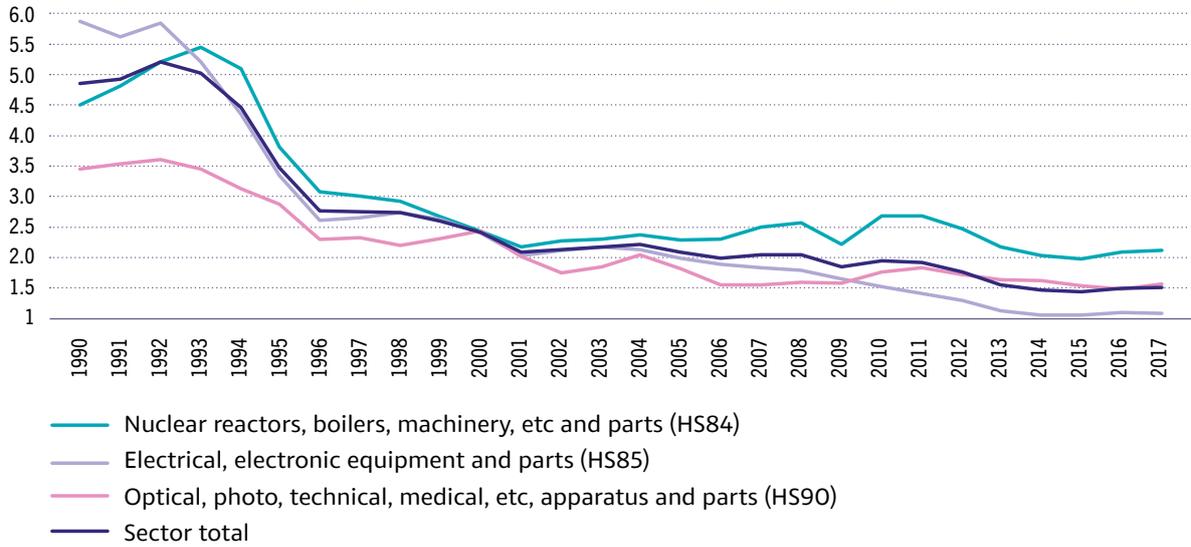
Source: UN Comtrade data, tabulated by author.

Figure 2 illustrates the export/import ratio of the four electronics related sub-sectors described above. There is a clear declining trend for all four categories, suggesting a relatively rapid increase

in the imports of electronics products. This trend is particularly evident for “electronic equipment and parts (HS 85)”, which includes products such as micro-ovens and smartphones.

2 Cabinet Office Statistics. The electronics industry captures the following four sub-sectors (1) General purpose, production and business oriented machinery, (2) Electronic parts and devices, (3) Electrical machinery, and (4) Information and communication electronics equipment.

Figure 2. Export-import ratio (Export/import)

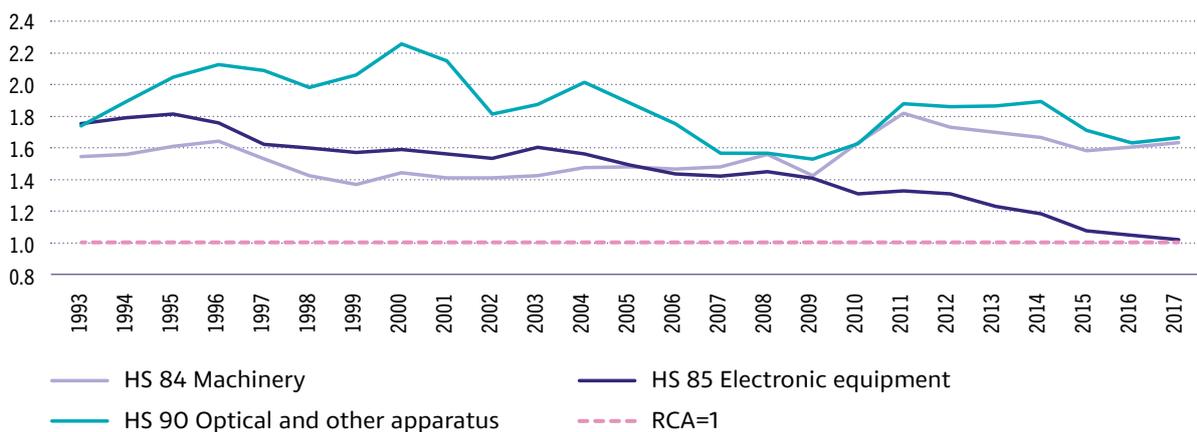


Source: UN Comtrade data, tabulated by author.

Figure 3 summarizes the recent trends of Revealed Comparative Advantages (RCA) of the three sub-sectors. The RCA is a proxy measurement for international comparative advantage of a specific product for a particular country<sup>3</sup>. If it exceeds 1, it suggests the country has comparative advantage in that sector, and the higher the figure, the stronger the comparative advantage. Figure 3 is interesting because it presents a mixed picture of how the

RCAs of the three sub-sectors have changed over the past recent years. First, the RCA of “electronic equipment (HS 85)” is in a continuing decline, where it is just above the RCA=1 threshold. However, the other two sub-categories of “machinery (HS90)” and “optical and other apparatus (HS90)” show a different trend, where the RCA particularly for machinery does not seem to be decreasing at all.

Figure 3. Changes in RCA



Source: UN Comtrade data, tabulated by author.

3 The RCA and REIR are calculated as follows.  $X$  stands for exports,  $M$  for imports,  $i$  and  $j$  denote industry  $i$  and country  $j$ , respectively, and  $t$  stands for year  $t$ . The RCA is calculated as  $RCA_{ijt} = \left[ \frac{X_{ijt} / \sum_i X_{ijt}}{\sum_j X_{ijt} / \sum_j \sum_i X_{ijt}} \right]$ . See Goto and Endo (2014) for more details.

These suggest that there is substantial variation in the export performance within the electronics industry, implying differences in business environments and prospects at the enterprise level, depending on their product mix. However, it should be noted that these macro-level trends only show changes at the aggregate level. As outlined earlier, the production and distribution of electronic products are organized globally through both arm’s-length interfirm relationships (outsourcing) as well as in hierarchical structures such as foreign direct investment (FDI). The reduction in RCA (particularly when final products constitute the majority) could simply be a result of labor-intensive assembly functions being relocated to neighboring countries, through FDI and/or outsourcing. This could actually have contributed to increased profitability and sustainability of Japanese enterprises. We will elaborate this in the next section.

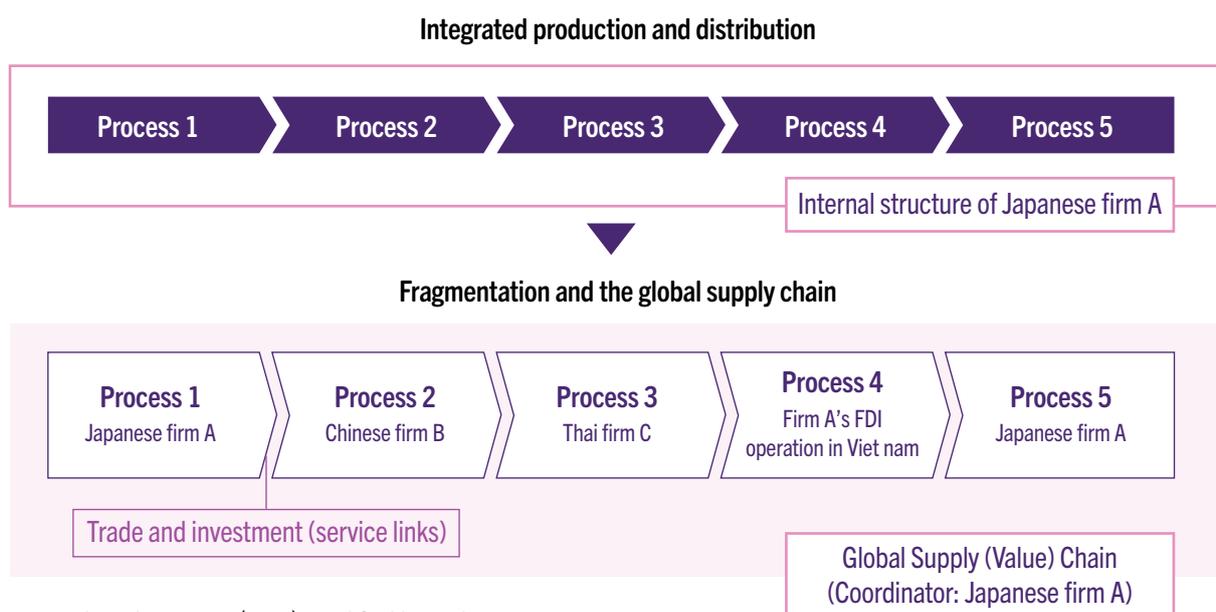
### Global supply chains

Figure 4 summarizes the organizational changes that has happened in the production and distribution of electronic products. The upper diagram highlights an integrated structure, where the production processes were integrated in one company. The processes are assumed to be different in factor intensities.

As argued earlier, this integral structure is now fragmented, and each of the production processes are relocated to areas with resource endowments that are more conducive to undertake them, highlighted in the lower diagram. For instance, Process 1 is still retained as a function of the company (Japanese firm A), because its internal resources match the factors of production necessary to undertake this process. Typical examples of such functions include product design and R&D, which tend to be knowledge intensive. Process 2, which could include capital intensive parts and components production, can be offshored and outsourced to company B in China.

International fragmentation in production processes is essentially an offshoring strategy, prompted by a motivation to capture the advantages stemming from locational differences in resource endowments. However, whether the process will be *outsourced* to a different enterprise or still be *retained in an FDI-unit* in a third country is dependent on other factors, such as the technological capacities of local enterprises capacity as well as the extent of modularity of the product architecture. For example, when technologies required to undertake the particular function is specific to the lead-enterprise (Japanese firm A in this case), it could be rational to retain process 4 within firm A’s FDI unit in Vietnam from a business strategy point of view.

Figure 4. From an integrated structure to global supply chains



Source: based on GOTO (2019), modified by author.

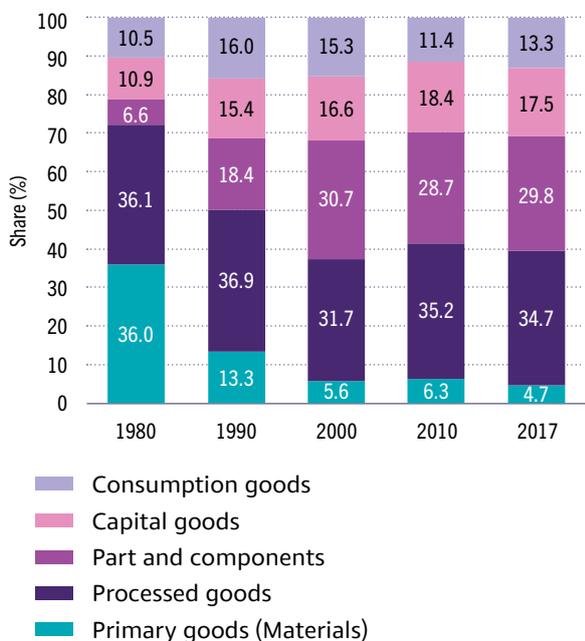
The other factor supporting global supply chains is the low service-link costs that connects the fragmented processes and functions (Kimura and Ando, 2005). If this is prohibitively high, then it becomes rational to keep the processes internal rather than to outsource/offshore. The proliferation of the internet and related applications in the late 90s and onwards were crucial in reducing these service-link costs, which therefore played a major role in the development of GSCs.

### Asia as the global hub for supply chains

The spread of GSCs led to changes in trade patterns as well. In GSCs, because each of the different processes are now connected through trade, fragmentation have induced international trade of intermediate inputs (processed goods, parts, and components).

Figure 5 summarizes the changes in intra-regional trade composition in Asia<sup>4</sup>. In 1980, the share of intermediate inputs in Asia was 42.7%, which increased to 64.5% in 2017.

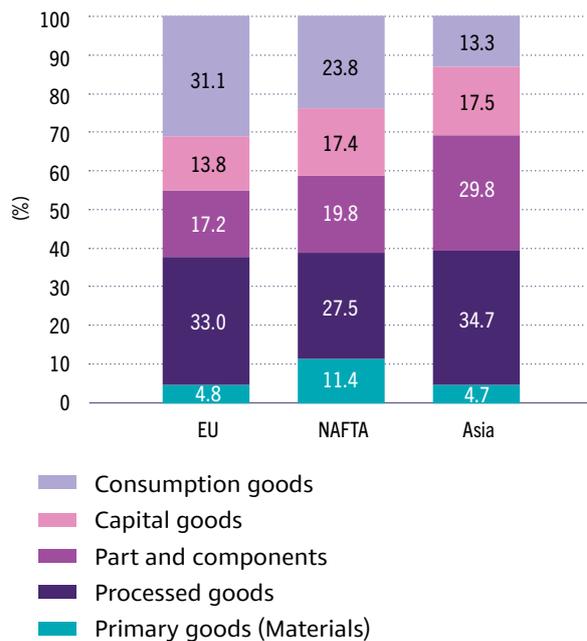
Figure 5. Intra-regional trade



Source: RIETI database, tabulated by the author.

The share for EU and North America (NAFTA) in 2017 were 50.3% and 47.3%, respectively (see figure 6). What is striking is the difference in the share of Consumption goods, which was highest for the EU with 31.1%, while it was just 13.3% in Asia. This shows the difference in the characteristics of economic integration that takes place in different regions – while integration in the EU (and to some extent North America) is more significant in final markets, that in Asia is typically in production (also referred to as supply-side integration), which has helped promote vertical division of labor. One of the possible reasons for this is the higher diversity in regional factor endowments in Asia in comparison to the EU and North America, which should be more compatible with fragmentation dynamics.

Figure 6. Intra-regional trade, comparison with EU and NAFTA (2017)



Source: RIETI database, tabulated by the author.

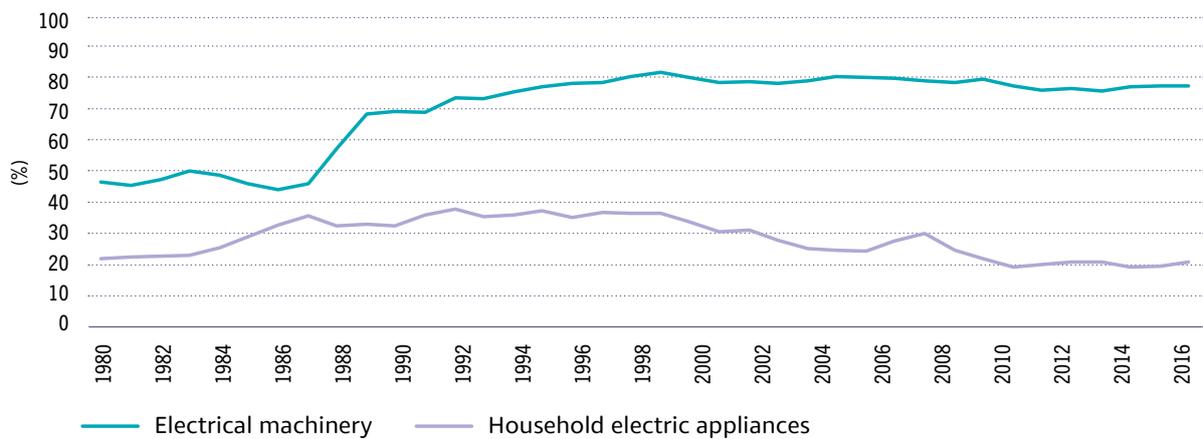
Again, it should be noted that these are aggregate observations, which may conceal different characteristics at more detailed classification levels. For instance, figure 7 describes shares of intermediate-inputs in intra-regional trade

4 “Asia” comprises from ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Singapore, and Vietnam) and Japan, China and the Republic of Korea.

in Asia for electrical machinery and household electric appliance. The difference in the change trends is clear; while the intra-regional input trade share for electrical machinery has increased significantly during the 80s and 90s and has remained at a high level since, that of household electric appliances have been declining particularly since 2000s and have also remained relatively low.

This could suggest that on average, household electric appliances have a more vertically integrated production structure, where fragmentation is much more limited in comparison to electrical machinery. This difference is primarily due to differences in product architecture between machineries and household appliances.

**Figure 7. Intra-regional trade, share of intermediate-inputs**



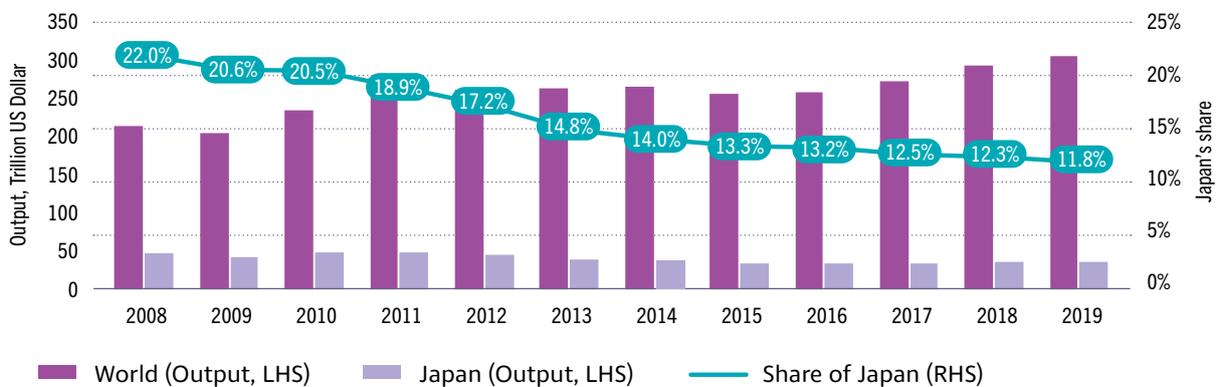
Source: RIETI database, tabulated by the author.

### The recent trends of the Japanese and Asian electronics industry

The total output of electronic products produced by Japanese enterprises has been in gradual decline in value terms. This is in stark contrast against

a global trend where overall growth has been robust (figure 8). This has translated into an even acute decline in its share of global output, which is projected to shrink from 22% in 2008 to about a half (12%) in 2019.

**Figure 8. Output of electronics products**



Note: Figures for 2018 and 2019 are estimates and projections, respectively

Source: JEITA (2018), compiled by author.

However, the prominence of Japanese enterprises in the electronics sector differs significantly between subsectors. Table 1 summarizes global production shares according to subsectors and output of Japanese enterprises. The largest subsector in the global electronics industry is solution services, followed by communication equipment, semiconductors, and computers/information terminals. These four comprise almost 80% of the output of the entire industry. The shares of Japanese enterprises are high in electronic components and AV equipment, which are 38% and 28% respectively.

The significant variation in the likelihood of offshore production by Japanese enterprises

according to sub-sectors is intriguing. 85% of AV equipment and 81% of computers and information terminals of Japanese enterprises are in fact produced in offshore locations (either through FDI or outsourcing arrangements in offshore locations). On the other hand, 88% of all display devices and 100% of solution services of Japanese enterprises are produced domestically. These differences, as explained earlier, are the results of different product architecture, which require different optimization strategies depending on the service link costs as well as the degrees of codifiability of related technological knowledge and modularity. We will discuss these in more detail later when we analyze actual business practices.

**Table 1. Japan's electronics enterprises in the global economy (2018)**

	Global production (in trillion Yen)	Production share	Share of Japanese companies	Share of domestic production
AV equipment	14.7	5	28	15
Communication equipment	57.4	18	4	37
Computers and information terminals	49.8	15	12	19
Other electronic equipment	15.3	5	17	57
Electronic components	25.4	8	38	29
Display devices	14.8	5	11	88
Semiconductors	52.6	16	10	68
Solution services	92.9	29	8	100
<b>Total</b>			<b>12</b>	

Source: JEITA (2018), compiled by author.

Table 1 is important not only because it shows how diverse production practices could be, but also because it illustrates the importance of offshoring strategies for Japanese companies. This is particularly true for sub-sectors with low domestic production shares, including “AV equipment”, “Computers and information terminals”, “Electronics components” and “Communication equipment”.

Table 2 summarizes major destinations of FDI establishments of Japanese electronics enterprises.

According to this, there were 9,093 Japanese FDI establishments in the electronics sector globally, out of which 5,272 (or 58%) were in East and Southeast Asia. China was the largest destination, with 22.5% of all electronics FDI. Thailand and Hong Kong attracted a large share of FDI from Japan in this sector as well. In terms of sub-sectors, the electronics sub-sector was occupying the largest share, followed by machineries. Another striking fact is that for each of the destination countries, around 30% of FDI are in fact in the electronics sector

Table 2. Overview of Japanese FDI

	Number of Japanese companies in all sectors	Number of Japanese companies in the electronics, machinery and precision equipment sector	Country shares (Out of sector total)	Shares of companies in the electronics, machinery and precision equipment sector (Out of country total)	Electronics (incl wholesalers)		Machineries (incl wholesalers)		Precision equipment (incl wholesalers)	
					Number of enterprises	%	Number of enterprises	%	Number of enterprises	%
China	6,774	2,045	22.5%	30.2%	1,066	15.7%	793	11.7%	186	2.7%
US	3,949	952	10.5%	24.1%	404	10.2%	402	10.2%	146	3.7%
Thailand	2,489	675	7.4%	27.1%	316	12.7%	310	12.5%	49	2.0%
Hong Kong	1,311	416	4.6%	31.7%	303	23.1%	78	5.9%	35	2.7%
Germany	838	399	4.4%	47.6%	181	21.6%	148	17.7%	70	8.4%
Singapore	1,416	388	4.3%	27.4%	223	15.7%	127	9.0%	38	2.7%
Taiwan	1,101	383	4.2%	34.8%	227	20.6%	129	11.7%	27	2.5%
Korea	962	361	4.0%	37.5%	177	18.4%	140	14.6%	44	4.6%
Malaysia	978	304	3.3%	31.1%	181	18.5%	97	9.9%	26	2.7%
Indonesia	1,273	271	3.0%	21.3%	124	9.7%	133	10.4%	14	1.1%
India	845	263	2.9%	31.1%	104	12.3%	129	15.3%	30	3.6%
Viet Nam	1,064	252	2.8%	23.7%	135	12.7%	86	8.1%	31	2.9%
UK	934	252	2.8%	27.0%	124	13.3%	86	9.2%	42	4.5%
The Philippines	608	177	1.9%	29.1%	115	18.9%	48	7.9%	14	2.3%
Australia	608	121	1.3%	19.9%	55	9.0%	47	7.7%	19	3.1%
East and Southeast Asia sub-total	<b>17,976</b>	<b>5,272</b>	<b>58.0%</b>		<b>2,867</b>		<b>1,941</b>		<b>464</b>	
Others	5,603	1,834	20.2%	32.7%	777	13.9%	769	13.7%	288	5.1%
<b>Total</b>	<b>30,753</b>	<b>9,093</b>		<b>29.6%</b>	<b>4,512</b>	<b>14.7%</b>	<b>3,522</b>	<b>11.5%</b>	<b>1,059</b>	<b>3.4%</b>

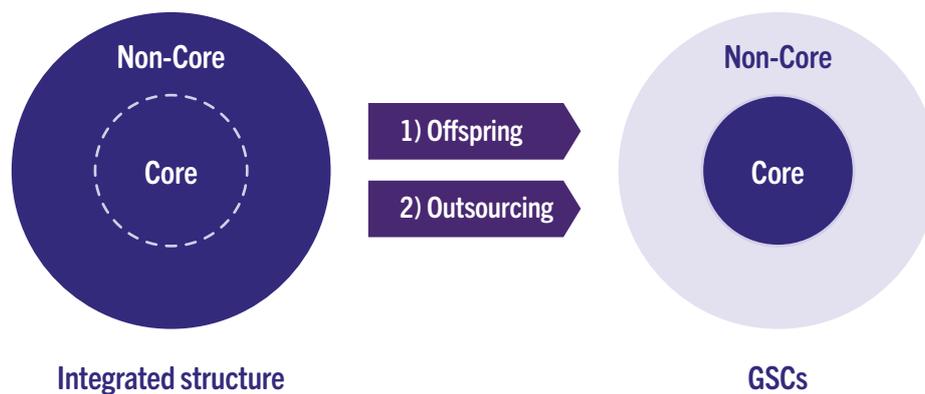
Source: Toyo-Keizai Foreign Affiliates Database, compiled by author.

## The conceptual framework – a business strategy point of view

Competitiveness in GSCs are determined based on *collective efficiency*, as argued earlier. The formation of GSCs allows lead-enterprises to externalize non-core functions through offshoring and/or outsourcing strategies (Figure 9). Offshoring is

to establish business operations overseas, and thus is an extension of the enterprise beyond the home-country border. Outsourcing, on the other hand, is essentially a business relationship between corporations which, in many cases, involve non-equity interfirm relationships. Subcontracting, sourcing and procurement are typical arrangements in this.

Figure 9. Business strategies in global supply chains



Source: Goto, 2019

The evolving GSCs have provided new opportunities as well as challenges for those involved in this complex structure. The benefits for lead-enterprises is that they can enhance competitiveness by optimizing chain configuration at the process level. For developing countries, the expectation is that this will generate employment in modern industrial sectors, and that it would help upgrade the local economy through technology transfer. It is also typically the main platform through which local enterprises can get integrated into the global economy.

This evolving context has, however, posed new challenges to lead-enterprises. As business activities have expanded and grown out of corporate and national boundaries, one of the major issues of concern is how to manage this chain of complex intra- and inter-firm relationships effectively so that decent work, competitiveness and industrial growth can be realized simultaneously. In other words, the strategic framework must embody win-win relationships between lead-firms and FDI units, as well as that between local suppliers (outsourcing relationships).

This is an important point in relation to employment, because productivity at each of the functional nodes (FDI units or local suppliers) in GSCs depend on their levels of internal process capabilities accumulated. This is typically represented by the amount of knowledge and skills embedded in the workers. Because the competitiveness of a product now depends on collective efficiency, one small glitch in the supply chain can reduce collective efficiency of the entire supply chain. This can be caused by, for example, low productivity stemming from lack of skills in the workforce, or by labor unrest at one of their local suppliers. Profitability in the short run, and sustainability in the long run, depend on how compatible business strategies are with the decent work conditions as specifically outlined in the ILO's MNE Declaration, because this defines their ability to attract and retain workers in the long run. This is particularly essential in many Asian countries where labor shortages have become increasingly significant.

Given this, the relationship between the provision of decent working conditions and competitiveness is more interlinked than ever. However, while the expansion of GSCs and their potentially positive

impacts to local economies in developing countries have attracted significant attention, concerns on how these will actually play out have also increased. Ample anecdotal evidence suggest that the inclusion of local economies in developing countries to these GSCs have led to significant increases in competition, in which some of the local enterprises have responded through cost-cutting measures at the expense of working conditions. Such “race to the bottom” type survival strategies are detrimental to workers’ livelihoods, enterprise performance, and national development goals. They will critically undermine collective efficiency and overall business performance (Goto, 2011).

The contribution of this report is to present actual cases (good practices) in which socially responsible employment and business practices constitute good and sustainable core management strategies. It will particularly look at how genuine competitiveness enhancing business strategies can at the same time be socially responsible and generate more and better jobs; and attempt to collect such model cases implemented by Japanese MNEs in their supply chains in Asia. In this, we define “socially responsible” as business practices that compatible with the International Labour Organization’s (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration).

## Employment and competitiveness in GSCs

In GSCs, employment is the primary foundation on which collective efficiency can be built. Employment issues in this context mainly relate to strategies in relation to (1) attract and retain good workers, and (2) empower workers through the development of up-to-date skills and knowledge. GSCs are efficient and sustainable when all FDI units and suppliers are competitive in their respective functional areas. This is, however not promised nor an automatic process. It requires significant technological transfer and training through both intra-firm (FDI) and inter-firm (outsourcing) relationships.

When MNEs enter into a new country to transfer particular processes and functions by establishing local operations through FDI, there is typically an acute shortage of the necessary skills in the

local labor market. As such, the need to train and upgrade skills of local workers is substantial. Likewise, when MNEs establish outsourcing relationships with local suppliers, it is highly likely that this require technical transfer from MNEs to upgrade production and managerial capabilities of such local enterprises. While some of the productivity gaps can be addressed by bringing in new machineries into those FDI-units or local suppliers, it remains a fact that skills and knowledge are always embedded in people (workers). Developing human capital through knowledge and skill transfer is thus key for dynamic local industrial upgrading.

This lack of local capacity is typically identified as the largest employment challenge from MNEs in the electronics industry. In other words, upgrading of skills and knowledge of workers is among the most crucial decent work issue from the MNEs point of view. While building such capability is not easy even in own FDI units, the challenges are significantly larger with local suppliers in outsourcing relationships. This is because the MNEs do not have direct access to workers to design and implement such programs. The distance, both in terms of governance relationships and geography between the MNEs and those suppliers make this difficult as well.

As such, while the need to upgrade skills of workers in such suppliers has been widely recognized, supporting this using resources of the MNEs can be perceived as “costly” in the short-run. However, as several good practices suggest, it is rational to engage with local suppliers and commit to transfer skills and knowledge to build workers’ capacity of those suppliers. This paper will introduce such practices in the latter part of the paper from Japanese electronics MNEs.

Good business practices that influence productivity and competitiveness in the non-engineering based production processes are important as well. This includes practices related to human resource management. Examples include the provision of better working conditions through enhanced occupational safety and health measures and promotion policies. These have proven to promote upgrading in process as well as stability in the daily operations of those local suppliers.

Furthermore, such commitment of MNEs can also promote dynamic upgrading of the entire supply chain by essentially emancipating the potentials of workers at shop floors in each of the FDI-units and local suppliers, that constitute key nodes in the GSCs. One of the key terms that is often used in explaining the dynamic improvements in productivity of Japanese manufacturing is *Kaizen*. This term literally means “improvement” in Japanese, which entails proactive worker participation in the upgrading of the production processes. This bottom-up mechanism would be particularly important for business sustainability as the ability to flexibly adjust to the changes induced by the rapidly evolving technology frontiers have become increasingly important for survival and growth. This report focuses on highlighting good practices of Japanese electronics enterprises in light of these, with explicit references to (1) intra-firm relationships in own business establishments in Asia (offshoring), and (2) inter-firm relationships with local suppliers (outsourcing). Let's first outline how these two dimensions interact with competitiveness and CSR/RBC.

### (1) Offshoring: internal management and employment issues of FDI-units

As to the issues pertaining to competitiveness in offshoring arrangements, the ability to attract good workers and retain them in each of the enterprises FDI-units is key. In the electronics sector of Vietnam, Goto and Arai (2018) find that FDI-units suffer, on average, a monthly worker turnover rate of about 2%, which in some cases can reach 4%. In the interview conducted for this particular project, similar turnover rates have been reported in FDI units in Vietnam and others. Such high worker turnovers are detrimental to the accumulation of knowledge and skills. Enterprises are in constant competition for workers particularly in a context where new jobs in service sectors are emerging and wage levels increasing. As such, offering good working conditions and providing opportunities to increase skills and knowledge are fundamental components of corporate strategies. Specific issues include human resource (HR) management and capacity building practices of the workers.

HR management practices determine working conditions of each of the workers, and as such are the main frameworks through which workers

incentives are shaped. Within this, effective dialogue mechanisms between employers and workers, both at formal and informal bases, are crucial to design sustainable and pro-competitive HR management practices.

Capacity building of workers is also important because this is what drives internal efficiency improvements. In-house training and skill transfer programs, such as on the job training schemes at HQs in MNEs' home countries will become important.

### (2) Outsourcing: external management and employment issues with local suppliers

Strategies pertinent to outsourcing relationships become much more difficult, simply as lead-enterprises do not have direct control over key leverage points of their suppliers, especially on employment and human resource management issues. However, as lead-enterprises tend to be in a disproportionately stronger position than local suppliers, they can influence their business practices through multiple entry points.

The first is related to the contracts in interfirm relationships, which is strongly influenced by product architecture. When the production processes rely primarily on modularized parts and components with common interfaces, then the relationship tend to be short-term with spot-based transactions. This is because there is no need to coordinate relationship specific R&D of parts and components. On the other hand, when product architecture takes a more integral structure, then interfirm relationships tend to be organized around long-term and repetitive transactions mostly because of input specificity.

When the technological gap between lead-enterprises and local suppliers are significant, then it is difficult to expect backward linkages with local enterprises to emerge automatically. Rather, lead-enterprises will outsource processes to other FDI enterprises in the offshore destination. The case of the automobile sector in Thailand is a case in point, where the majority of parts and components used by Japanese car assemblers are from FDI based first tier suppliers in Thailand. In other words, while local contents of automobile assembly may have increased, the roles of Thai local

enterprises in the outsourcing relationship is still limited in comparison to FDI suppliers (Natsuda and Thoburn, 2013).

Issues pertinent to employment practices in this context primarily relate to building and upgrading of skills through interfirm-technological transfer. Regular dialogue and meeting between buyers and suppliers are typically key channels for this. This paper reports some of such practices undertaken in electronics supply chains organized by Japanese MNEs.

### ***De-jure* approaches: regulatory frameworks, codes of conduct, and compliance**

Enterprise strategies are also influenced by the regulatory framework in which they operate, as they will shape business incentives and strategic outcomes. For example, export processing zones (EPZs) in developing countries often come hand in hand with incentive packages for foreign enterprises such as reductions in corporate income and value added taxes, concessional rates for land lease contracts, and import/export duty exemptions. These would affect lead-enterprises' investment decisions, and influence on how local economies will be connected to GSCs. Such favorable policies towards FDI-units can be perceived as highly discriminatory, putting local enterprises in a great disadvantage. Whether such incentive packaged for FDI actually turns out to be discriminatory depends, of course, on whether the business functions of the FDI-units and local enterprises are substitutionary or complementary. The effect to the local economy would be negative in the former, but in the latter case, it would generate positive externalities in which win-win outcomes can be achieved.

Regulatory frameworks are powerful tools to ensure responsible behavior of enterprises through compliance. Such approaches, which are essentially rule-enforcement based, are referred to as "*de-jure*" approaches in this report. There is significant amount of research available on this, particularly on how regulatory frameworks

and different compliance mechanisms affect responsible behavior of MNEs. One of the most important rules relevant to this context is the labor code. For example, overtime-work regulations are crucial components of any labor code. Ample evidence suggest the prevalence of poor working conditions due to excessive overtime work globally, and a determined implementation of related regulations through labor inspections can address this problem effectively. Others that are relevant and important for the electronics sector include the "Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)" Directive and the "Registration, Evaluation Authorisation and restriction of Chemicals (REACH)" Regulation. These EU regulations aim to protect both the environment and peoples' health, and have direct implications to occupational safety and health related risks of the workers throughout the supply chain.

Private regulations, such as Codes of Conducts (CoCs) are also effective in ensuring responsible behavior of enterprises. CoCs are private rules explicitly stipulating good corporate behavior, and typically extends into nearly every aspect of enterprise operation. Most of the electronics MNEs have already institutionalized their own CoCs, of which quite a few are based on the one established by the Responsible Business Alliance (RBA). The RBA (formerly the Electronics Industry Citizenship Coalition, EICC) is the "world's largest industry coalition dedicated to corporate social responsibility in global supply chains<sup>5</sup>," which include more than 140 enterprises in the electronics, retail, automobile and toy sectors.

Buyers increasingly demand their suppliers to abide by the standards as stipulated by the CoCs of RBA. This process typically involves third party auditing, which is based on an extensive check-list including items such as preventive measures on child labor, overtime control, and occupational and safety standards.

The auditing process involve interviews with workers and on-site (shop floor and office) inspections. They also look at whether relevant CSR practices as defined by RBA are explicitly written

5 From RBA web page (<http://www.responsiblebusiness.org/about/rba/>), accessed on May 26, 2019.

and documented as internal regulations and/or reflected in operational manuals. The assessments are fed-back to lead-enterprises, and depending on the severity of “non-compliances,” they can result in possible renegotiation or termination of the supplier contracts (Goto and Arai, 2018).

These “*de-jure*” based mechanisms, both formal and private, are certainly key components to ensure responsible enterprise behavior in the electronics supply chains. Institutional frameworks shape private incentives, and as such are important to understand why specific enterprise strategies are formulated as they are. As such, these will need to be addressed in a separate study, which looks more specifically on compliance and due diligence. Meanwhile, this report focuses more on strategic behavior of enterprises that are internally motivated.

### ***De-facto* approaches: self-enforcing and responsible business strategies**

Socially responsible practices can be embedded in pure business strategies, even without explicit rules designed specifically to ensure responsibility. These types of enterprise behavior are self-enforcing precisely because they emerge from profit maximization motivations. We will refer to such mechanisms as “*de-facto*” based. “*De-jure*” and “*de-facto*” approaches are not substitutes, but in many cases are mutually reinforcing and exhibit strong complementarity (Goto and Arai, 2018).

This paper is concerned with highlighting good “*de-facto*” practices of Japanese electronics MNEs in responsible business and employment strategies in supply chain management, particularly in both their FDI units (offshoring) and with their suppliers (outsourcing) relationships. The goal is to generalize the core elements of these practices so that they could be disseminated effectively and further replicated.

## **The MNE Declaration**

As mentioned earlier, this report uses the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration) as the key reference point to define “responsible practices.” The Declaration contains the following five areas of recommendations<sup>6</sup>:

- 1. General policies;** respect the sovereign rights of States, obey the national laws and regulations, give due consideration to local practices and respect relevant international standards,
- 2. Employment;** promoting employment with equality of opportunity and treatment, and security, and the elimination of forced or compulsory labour,
- 3. Training;** develop national policies for vocational training and guidance, closely linked with employment,
- 4. Conditions of work and life;** wage, benefits, hours of work, minimum age, safety and health, and
- 5. Industrial relations;** freedom of association and the right to organize, collective bargaining, consultation, examination of grievances, settlement of industrial disputes.

As these are not mutually exclusive but are rather interlinked, however, this report does not categorize the findings accordingly.

### **Some findings from the preliminary survey**

As noted earlier, this report is mainly based on face-to-face interviews with managers of Japanese electronics MNEs in both Headquarter office in Tokyo and in different FDI units across Asia through web-based communication systems. Prior to the interviews, however, a preliminary survey was conducted in August 2018 to enterprises comprising mainly of JEITA’s CSR committee members. Responses from 13 enterprises (19 business units) were obtained. The purpose of this survey was to establish a baseline of the issues

6 For details, see MNE Declaration 5<sup>th</sup> edition (2017), which full text is available at [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---emp\\_ent/---multi/documents/publication/wcms\\_094386.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---multi/documents/publication/wcms_094386.pdf)

related for further investigation. Below are some of the findings, most of which will be elaborated in the sections that follow.

First, most of the enterprises showed strong interests in promoting and maintaining health and safety of their workers. Concrete actions include regular health-checks (both physical and mental), the provision of health-insurances, holding stress management seminars, and conducting occupational safety and health related training.

Second, some of the enterprises were also actively engaged in supplier audits and visits to ensure decent working conditions and responsible practices in their supply chains. Transfer of know-how related to HR management, trust-building, effective dialogue, and production technology were also regularly conducted during these visits.

Third, several actions were pursued in relation to dialogue, such as regular meetings of workers and employers, in some cases termed as “town hall meetings”. Proactive measures to collect feedback from workers regarding their working conditions have been taken, such as the establishments of communication boxes where workers can lodge complaints and other issues of concern to the management.

Finally, the importance of improving the quality of canteens came up in almost all of the responses from offshored facilities (FDI units). This has been discussed quite extensively in the Japan funded electronics supply chains project in Vietnam (see Goto and Arai, 2018). Sport events and company trips were also regarded as effective to foster collegiality and trust building among workers and employers.

## Good practices

This part of the report is based on face-to-face interviews with managers at key Japanese electronics enterprises that operate extensive supply chains in Asia. 11 enterprises (12 business units) were interviewed in this process. All the interviews, except 1, were arranged by JEITA.

While most of the interviews took place in their respective Headquarters in Tokyo, some were conducted online with respective FDI-units in China, Thailand, the Philippines and Vietnam. Most of the interviews took place during January – March of 2019. One additional interview was conducted in early September.

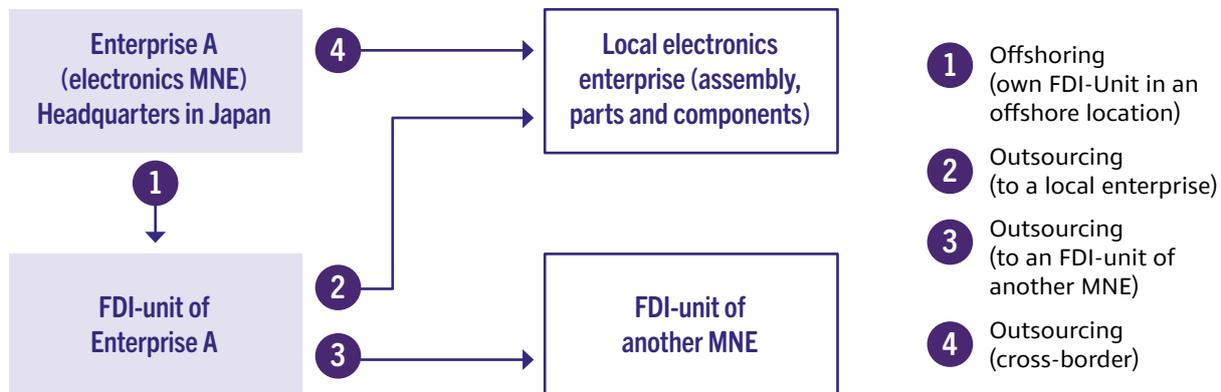
The questions were targeted to both headquarters (HQs) and FDI-units of these selected Japanese electronics MNEs. Some were addressed by managers in charge at the respective HQs, and others were organized through internet-based conference systems at respective HQs, JEITA office, and other locations.

The enterprises interviewed were diverse in terms of their business domain as well as in products. Out of the 12 business units that we were able to interview, 9 were producing electronic parts and components such as semiconductor packages for smartphones, control panel displays for automobiles, electrode catalysts for fuel cells, printed circuit boards (PCBs) and related modularized parts. Other products include nickel-metal hydride (NiMH) and lithium batteries, solid state drives (SSDs), hard disk drives (HDDs). One was specifically supplying for automobile assemblers, and was producing electronic parts for engine control systems. In addition, three were producing home appliances (air conditioners parts related parts, printers), and another two were producing machineries<sup>7</sup>.

The first set of questions were related to the overview of the particular businesses and products as well as generic information of the FDI-units (arrow 1 in figure 10). Issues on internal employment related management practices of each of the FDI-units were discussed in this. This was followed by questions regarding outsourcing arrangements. This include outsourcing from FDI units to local enterprises in offshore locations (arrow 2) as well as to other FDI-units (arrow 3). It occasionally involves cross-border outsourcing arrangement, including those directly from HQs to foreign suppliers (arrow 4). Finally, questions on roles of associations including JEITA and dialogue mechanisms were addressed.

7 Several business units were engaged in the production of more than one product.

Figure 10



Source: Author.

It should be noted that these good practices include both enterprise level global practices that are determined at HQs and implemented from top-down directives, and those that have evolved locally in FDI-units through bottom-up mechanisms.

### 1. Offshoring (FDI): Internal issues

This section is concerned with good practices in FDI-units. As such, there will inevitably be emphasis on internal employment and human resource management issues, particularly on recruitment and retaining of workers. However, the good practices identified in this section still cover all the five focus areas of the MNE Declaration as outlined above.

The ability of enterprises to recruit and retain workers is highly dependent on both HR management practices and local labor market conditions. Figure 11 is a representative workforce composition within a manufacturing-based electronics FDI-unit. While the actual composition shares vary between enterprises because of the variation in the products or services they undertake, this figure nevertheless captures the key workforce characteristics of those FDI-units.

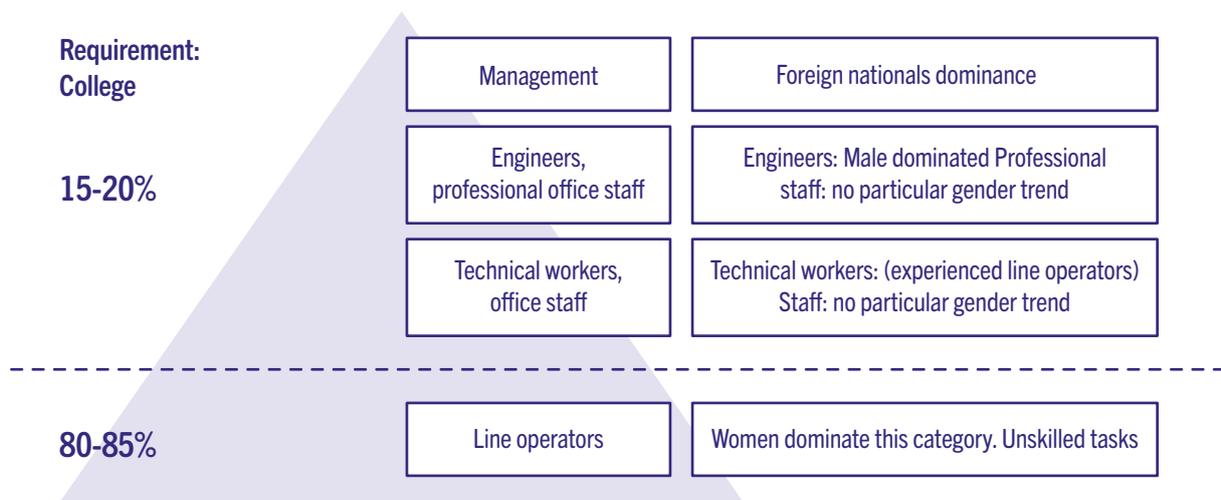
The majority of the workforce consists from line operators, who undertake relatively simple and repetitive work. In the FDI dominant electronics industry in Vietnam, for example, roughly 80-85% of all workers were line operators. Specific skills for this job category are not required, and workers

are often trained through On the Job Training (OJT) schemes in production lines. Workers in this category undertake labor intensive assembly functions, and female workers tend to occupy a much larger share than male workers. The other job categories include technical workers (engineers), professional staff, and managers, which collectively occupy a much smaller share. The workers in this category have higher educational attainment compared to line-operators.

Most of the enterprises that were interviewed found that recruiting workers in all job categories were getting difficult. Within this, the recruitment of “engineers” was perceived as the most difficult.

The reasons behind this was primarily due to increased employment opportunities in the local economy. Enterprises are now in competition for workers, and must attract them by providing competitive remuneration packages. In this, economic growth in many of the Asian economies has also led to wage increases, which enterprise now also need to incorporate when recruiting or retaining workers. Whether enterprises are able to offer good working conditions is almost directly correlated to their success of upgrading and sustained competitiveness (Goto, 2011). Other reasons that come up regularly in connection to retaining workers is related to long holidays, such as the Chinese New Year, Songkran in Thailand, and Tet in Vietnam. There is anecdotal evidence that suggest that workers tend to quit or simply never come back before or after such long holidays.

Figure 11. Workers composition



Requirement: None

Source: Adopted from Goto and Arai (2018)

### 1.1 Training and skills development

Development of skills and knowledge of workers is one of the most effective means to ensure win-win for workers and enterprises, and have been regarded as key by all of the electronics MNEs interviewed. In fact, almost all electronics MNEs were looking for increased capacities and transfer of functions to offshore locations, including progressive localization of design and planning functions to offshore locations.

Typical training schemes involve tailored programs that are directly relevant to operation processes, which can take place at the FDI-unit or in HQs in Japan. Local training at Japanese electronics MNEs typically address issues such as 5S (a workplace organization method, which aims to make workplaces more organized, safe, clean and efficient), Quality Control (QC), and Just-in-Time (JIT) systems. Workers that are selected for training in Japan tend to be those in higher job categories, such as managers or engineers. The duration of these training varies widely; some were for a couple of weeks, while others could be as long as two years.

Almost all enterprises interviewed had training programs for their workers who were locally recruited, and a few attributed the effort in this as the key for reduced turnover rates. For instance, Fujitsu attributes their low turnover rate in one of their establishments in Xiamen, China, to their

emphasis on training, which are tailored to cater for the different needs of workers depending on their job functions. Fujitsu in particular considers Occupational Safety and Health related training as one of the most important issues in which consistent training opportunities are provided. They also conduct tailored training sessions that are based on the RBA CoC, which are sometimes also initiated upon request from buyers.

Hitachi's training programs are also tailored around issues that are at the core of Japanese manufacturing-based management practices, including 5S, QC, and JIT systems, incorporating individual needs. They integrate training into evaluations, where performance is monitored and integrated into individual worker's Key Performance Indicators (KPIs), which will in turn become the basis for future training program planning.

Language training is also provided by some of the Japanese electronics MNEs. For example, Hitachi is providing English (not Japanese!) language training sessions to Thai workers in their FDI-unit in Thailand. This is apparently in line with Hitachi's overall policy, which aims to promote smooth transactions in global operations, in which workers should be able to take up jobs in any of their offices world-wide. In an era where corporate activities as well as employment opportunities are expanding at a global scale, this should certainly attract motivated workers anywhere.

Seiko Epson had On the Job Training (OJT) programs that were organized with local universities where they operated. Such universities tended to be engineering oriented universities. The duration of those programs varied, but the longer one lasted for 6 months. Each of the programs were planned according to guidelines set by RBA. The benefits for the students is that they can get hands-on experience of cutting edge technology.

In addition to this, Seiko Epson also had several training programs conducted in Japan for workers in their overseas FDI units. Eligibility for those programs were not limited to senior management levels, and were also open to junior staff, depending on the purpose and contents. Topics of those programs included Quality Control (QC) and environmentally friendly practices.

## 1.2 Objective and transparent HR policy

HR policies were considered as key to attract and retain workers. A common feature of successful HR management practice was to ensure both objectivity and transparency of performance appraisals. Objective rules for performance appraisals are important because it will promote fair practices, and having transparent procedures is also crucial especially in relation to promotion. These practices will provide clear prospects for career building to all workers, which is less discriminatory in terms of age, sex, or other personal backgrounds.

Yokogawa Electric China Co., Ltd., a regional subsidiary of Japan's Yokogawa Electric Corporation, is one of the enterprises that has successfully achieved low turnover rates (about 10-12% annually) in its plant through improvements in HR management policies. This essentially involved the termination of the previous ones that were largely based on the Japanese seniority system. In such systems, promotion and salary levels are typically determined based on the age or length of services of the workers – the older the worker is, the higher her/his salary. This could actually be substantially different from the real contribution of the workers to enterprise performance. The seniority-based HR management practice is still widely used in the Japanese economy (including in public sector organizations), and there has been increasing debate on whether changes in these

types of practices are needed. The criticisms related to this is precisely in the lack of objectivity and transparency that may be detrimental in terms of workers' incentives.

At Yokogawa Electric China, radical measures were taken where the traditional HR management policy was replaced by an evaluation system that was based on workers' actual skills and competence. As such, promotion and wage levels were to be based on each of the workers' skill levels and contribution only. This has promoted objectivity and transparency of workers' evaluation, which significantly improved the confidence levels of local workers. KPIs have also been set for each of the workers through intensive dialogue with managers. Similar initiatives were taken at FDI-units of Panasonic, Company A, and Fuji Xerox.

In connection to this, Yokogawa Electric China and Company A cases are also interesting because it was the local workers (Chinese and Thai, respectively) that played leading roles in redesigning their own HR policy. This practice is fully compatible with the MNE Declaration, particularly in relation to respecting and giving due consideration to local practices. As local workers typically have better understandings of local employment practices, it makes perfect sense to involve, or even delegate significant responsibility to them to reform and designing pertinent policies. Seiko Epson also encouraged promotion of local workers in key management positions in their respective FDI-units. In Indonesia, for instance, the vice president is an Indonesian national. Having someone from the locality in such senior positions made communication with other local workers smoother, and also provided role models in terms of career paths.

Yokogawa Electric China also introduced a new policy in HR management which encourages the recruitment of returning workers, who have in the past quit their jobs and moved to other companies. This re-hiring policy applies to all workers, except those who were previously in managerial positions. Such measures were introduced because such movement of workers is not exceptional in the local labor market, and also because it made sense for the management in terms of competitiveness.

The delegation of authority to local workers can happen when good worker-manager relationships exist. To foster this relationship, trust-based relationships between workers and managers must be established, and dialogue is the only method to promote this.

### 1.3 Improvements in general working environments

Improvements in general working environments also affect enterprises' ability to recruit and retain workers. Worker turnover rates may be affected by business cycle trends, but satisfaction in general working environments seem to have direct effects in determining worker turnover. For example, Panasonic has continuously worked in their FDI-unit in China to improve the working environment by improving sanitation facilities, installing air-conditioning at workplaces. The provision of better quality of food in their canteens have been emphasized by most MNEs interviewed, including Panasonic and Seiko Epson.

In often cases, initiatives to upgrade workplace environment are led by local workers. For example, Company A has established welfare committees in their FDI-units in Thailand and Vietnam, which activities has led to upgrading of their sanitary facilities. These committees were also pivotal in improving canteens in their premises as well.

To attract and retain workers in China, where competition for workers has intensified over the years, Seiko Epson has been providing commuting services by buses to their workers in their plant in China to workers. Activities such as company trips and other events have been extremely well received, and considered to be highly effective in nurturing good workplace environments.

### 1.4 Dialogue

All of the good practices are underpinned by trust established between the management of the FDI-units, local workers, and HQs. The only way to achieve this is through dialogue. Such dialogue do not exclusively refer to formal mechanisms such as collective bargaining where employers and workers meet only once a year. Equally important are the more informal and casual communication that take place regularly at work.

Panasonic, for instance, has been attempting to actively pursue less-formal dialogue fora to discuss issues that may not come up in more formal settings, but are nevertheless regarded as important from the workers' perspectives, at least every two months. Communication during lunch or recreation activities are also important. It is very common for Japanese managers to take lunch in the same canteens with workers, which seem to be very helpful in establishing collegiality and trust.

Toshiba also promotes dialogue through the Labor Management Committee (LMC), which meets every month. One strong feature of this is the scope of dialogue that takes place through the LMC, which include peer-to-peer dialogue, top-down dialogue, and services dialogue, which includes workers and contractors/vendors in charge of transportation and canteen services. A whistle-blowing system has also been established when sensitive but critical issues has to be raised.

## 2. Outsourcing: External issues

The choice of whether to produce it internally or to outsource is one of the most important decisions in management strategies. The rationales for any outcome are dependent on multiple factors, such as the extent of service-link costs that are required to connect the dispersed processes in outsourcing, or the availability of reliable enterprises locally (including both local and FDI-units) with the necessary technological capacity to which the externalized processes could be outsourced.

From interviews, complex and higher value-added products were more produced internally (in own FDI-units), while outsourced products tended to be of lower value addition. Complex products often require relation specific (non-modularized) inputs, and as such, an integrated product architecture would be optimal. However, an increasing share in terms of volume (quantity) are being shifted from internal production towards outsourcing in offshore locations, because of the accelerating modularization of product architecture in various electronic products.

This has created new challenges for those that configure and govern the evolving GSCs, including Japanese electronics MNEs. The biggest challenge

stems from the fact that while working conditions at their suppliers are important to their own operational efficiency, they do not own direct leverages to influence actual practices that are implemented. Thus, the question is; what are the good practices of Japanese MNEs in relation to offshore suppliers in which they do not have any ownership and thus direct control?

It should be noted, again, that the capacities of local enterprises differ significantly depending on the offshore destination and the particular sub-sector in which the enterprises operate. Backward linkages have developed rapidly in countries such as China and Thailand because of the evolving local supporting industry, where local enterprises play increasingly dominant roles, while this is still very limited in others, such as Vietnam. This relationship is depicted in arrow 2 of figure 10.

In the case of the production of air-conditioners in China, for example, sheet metal pressing, and metallic molds production are already undertaken by Chinese local suppliers. PCB mounting is still outsourced to Japanese FDI-units (arrow 3 of figure 10), however this is also gradually being undertaken by local enterprises in China. The development of such backward linkages is highly correlated with the growth of competitive local Chinese electronics enterprises, such as Midea and Gree. In some cases, it has become difficult for some of the Japanese electronics MNEs to secure production capacities of local suppliers. On the other hand, such local enterprise based backward linkages are not yet available in late-coming countries such as Vietnam. In this case, the inputs must be sources from FDI-units in the same vicinity or imported from neighboring countries that produce them.

### 2.1 Capacity building of suppliers – technology transfer

Technological catch-up by Asian electronics enterprises has been extremely rapid, and in some of the sub-sectors, they have already surpassed that of Japanese peers. However, Japanese MNEs are still competitive in many other domains, retaining advantages in terms of technological capabilities vis-à-vis Asian enterprises. As such, there is still substantial scope and expectation for local capacity building through technological transfer by both local enterprises and recipient

country governments. Technology transfer to local enterprises is no doubt directly compatible with enhancing collective efficiency. It should be noted, however, that the needs for technology transfer and the types of the technology transferred varies significantly, according to the products produced. This is because of the differences in the product architecture of these different products.

From a development perspective, technological transfer from MNEs is crucial for inclusive supply chains as backward linkages with local companies will generate employment, reduce poverty, and promote local economic development. The transfer of advanced technology, knowledge and skills typically happen through regular consultations through interfirm relationships, leading to self-enforcing, mutually beneficial solutions.

MNEs that provide such channels for new technology and knowledge are attractive for local enterprises, and thus become sources of competitiveness and business sustainability for lead-MNEs in offshore locations. This will become particularly relevant when competitive conditions in local markets become serious. For instance, as particular offshore locations become attractive for MNEs to establish supply chains through outsourcing relationships, competition for reliable and competitive suppliers will intensify. This will lead to changes in power relationships between buyers and suppliers in favor of suppliers, where some of the less preferred buyers could experience difficulties to source from such competitive suppliers. This is already happening to some extent in China.

As discussed earlier, Japanese electronics enterprises are no longer the sole dominant player in the electronics industry in Asia – certainly not in terms of production volumes. However, the case of Panasonic suggests that active transfer of technology and knowledge related to process and managerial issues to their suppliers has allowed them to gain a strong foothold in the local industry, leading to stable and reliable relationships with strong local suppliers. This position has been achieved through interfirm collaboration in technology transfer, where Panasonic regularly sends designated technical staff to suppliers to support them to upgrade in terms of processes. In addition to this, Panasonic holds monthly meetings where all major suppliers are invited, and exchange

view and solutions on key technical related issues. It also holds an annual meeting where all key suppliers are invited, where Panasonic explains its plans and commitments for the next year.

Similar initiatives are undertaken by Seiko Epson in Indonesia, where they produce all-in-one (multi-function) printers. They operate within close and long-term relationships with its key suppliers, where it produces all-in-one (multi-function) printers. Most of the parts and components are produced under a highly integrated product architecture, specifically designed according to Seiko Epson's technical specifications. Highly knowledge intensive parts are particularly procured under such closely organized interfirm-relations. Some of those key suppliers even operate on-site.

While most of the cases were in relation to the production of hardware, the software component has become increasingly integral and important to the quality and performance of hardware itself as well. NEC, for instance, actively collaborates with local enterprises, particularly in China, in the configuration and production (programming) of software. Software products tend to be much more context specific than hardware, and as such collaborative partnerships with local corporations is key. China now has already emerged as one of the major software producing countries in the world, however NEC had been actively transferring knowledge and technology to local Chinese enterprises as early as in the 1990s.

## 2.2 Capacity building of suppliers – management issues

Issues that are not directly related to production technology, such as socially responsible HR management strategies, are also important assets that can be transferred to local enterprises. Stable operation of suppliers is the cornerstone for collective efficiency. Operational instability and disruptions of production at local suppliers happen primarily because of labor disputes. This will have serious consequences as it will disrupt and stop production flow in own factories.

One of the good practices in relation to this can be found from Fuji Xerox, which is particularly strongly committed to build capacity of its supplier firms in terms of socially responsible corporate conduct.

In this process, Fuji Xerox assesses and identify shortcomings in suppliers' operations, using a tailor-made Self-Checklist, which is based on RBAs CoC and Self-Assessment Questionnaire (SAQ). The results of the assessments are not used to evaluate or punish the suppliers. Instead, they are used as a guiding tool to help them comply with the CoC and implement responsible practices. Based on the self-evaluation results, Fuji Xerox dispatches their own technical experts and provide consultation on areas identified through the assessments. As such, they emphasized that these visits were not "audits," but were regarded as "expert visits," where implementation of corrective actions are worked out jointly with suppliers and their own technical experts, in the spirit of equal partnership.

In the short run, such initiatives might be seen as an additional cost to Fuji Xerox. However, Fuji Xerox remains committed to such practices because it has played out in concrete operational efficiency gains along the supply chain, leading to better business outcomes. The effects of reduced incidences of disruption in production lines at both the suppliers and Fuji Xerox have been quantified and used for cost-benefit analysis. The results show that such practices were highly cost saving, and thus pro-business in the long run. In addition, because such practices are completely compatible with competitiveness enhancing strategies, they are self-enforcing and highly sustainable.

A very similar commitment and engagement was practiced by Panasonic as well. Technology transfer usually happen based on long-term and stable business relationships. Seiko Epson also holds monthly meetings with key suppliers, where issues related to production planning, compliance, evaluation and auditing are also discussed intensively.

Such interfirm relationships were once the hallmark of Japanese industrial organization; however, this has been changing towards more flexibility in many industries. Nevertheless, this is still practiced widely as it is more conducive for interfirm collaboration that involve sharing of sensitive information. Such practices are particularly evident in enterprises involved in automobile parts and components, which product requirements tend to be stricter than general electronic equipment.

## 2.3 Standards and partnerships

*De-jure* based practices (standards) complement *de-facto* practices, and several good examples have been identified from the interviews.

Standards, accreditation and certifications have been used to directly screen suppliers, or ensure responsible practices of suppliers. Sometimes these were practically imposed as minimum requirements upon local suppliers, at the request from final set-makers and assemblers. Good practices usually involve follow-ups by MNEs in forms including capacity building. Yokogawa Electric Corporation, for example, encourages their suppliers to incorporate practices that are conducive to relevant standards such as ISO14001 and OHSAS (Occupational Health and Safety Assessment Series). Supplier audits are conducted every three years to key suppliers, and support for compliance are provided when necessary. Such a practice was particularly wide-spread in automobile supply chains where electronic component suppliers had to be certified according to relevant standards such as the IATF 16949.

A more generic approach has been taken by NEC, where it attempts to identify potential issues in relation to responsible business practice. The uniqueness of this program, which is called “Supplier Visit Record”, is conducted by NEC staff at their partners’ site, who are not necessarily experts on CSR audits. NEC staff makes an inspection of sustainable procurement requirements during its ordinary visits to suppliers and keeps records of the inspection. The activities are more embedded in regular inter-firm relationships, in which joint action is emphasized.

Toshiba presents an interesting case where it supported capacity building of local enterprises in complying with labor standards including occupational health and safety (OHS) standards. The program is called OHS-GUILD supplier partnership program, and is a private spinoff of an earlier government program executed by the Department of Labor and Employment (DOLE) of the Philippines, the KAPATIRAN Program. Under the OSH-GUILD program, training sessions by experts as well as on-site audits are conducted. When issues and shortcomings are identified, corrective action is implemented, and the results

validated. The program has led to significant reductions in work related accidents, and also contributed to strengthening partnerships with these local suppliers.

## 2.4 Social dialogue

Quite a number of enterprises interviewed perceived JEITA’s role as crucial in setting agendas for social dialogue, by frontloading social responsibility issues in business discussions. It is at a vantage point in terms of information sharing on global trends as well as on relevant good practices in relation to Decent Work, or Sustainable Development Goals (SDGs), more broadly. This is an important and valuable platform infrastructure that can connect enterprises beyond private and competing goals. Common frameworks provided by JEITA, such as its Supply-Chain CSR Deployment Guidebook (CSR Guidelines) are helpful.

The good practices that were highlighted in this report are self-enforcing and sustainable because socially responsible behavior was aligned with profit maximizing strategies. Nevertheless, because each of the individual corporate practices have positive externalities to the wide society, the “supply” of such good practices will remain sub-optimal precisely because of these externalities, as basic economic theory suggests. When this is the case, governments can play positive roles by providing incentives to enterprises to encourage adaptation of similar good practices. This could include subsidies or other award schemes, which may also include non-financial measures. In essence, this is about fine-tuning alignment of socially responsible practices and profit maximizing strategies.

The spread of GSCs have also presented new challenges in terms of effective social dialogue mechanisms. Production processes have spread across borders involving different enterprises through different contractual and governance relationships. As such, the traditional tripartite structure involving workers, employers and government within the national framework is seriously constrained to discuss issues and implement policies that are relevant in the context of GSCs. Such traditional tripartite structure will remain the most basic unit for effective social dialogue at the national level. However,

in the era of GSCs, an extended “tripartite-plus” platform is needed which encompass and involve stakeholders beyond the traditional, national-based tripartite structure of host-countries, to include MNEs and their HQs in home-countries. Home-host dialogue must be embedded in such structures.

Good practice was identified in relation to this, in the case of Toshiba with their operation in the Philippines. There have been changes in labor related legislation, and some of the newly implemented regulations such as contract workers are still among the issues that continues to receive significant public attention in the Philippines. The point is that Toshiba has been involved in the national social dialogue process through various channels including the Semiconductor and Electronics Industries in the Philippines Foundation Inc. (SEIPI) and the Philippines Chamber of Commerce and Industry. Such inclusivity of national associations can cater for the functions expected to be carried out by a “tripartite-plus” structure.

Finally, the SDGs were perceived as useful guidelines particularly in aligning the different interests of different stakeholders in the dialogue process to ensure coordinated actions, because it allows better identify potential areas for collaboration. The fact that Keidanren has adopted this as the guiding principles of their Charter of Corporate Behavior was also regarded as positive.

### 3. Recommendations

#### 3.1 Designing and implementing tripartite plus mechanisms through open platforms for enhanced social dialogue

One of the issues raised by several electronics MNEs was that increased opportunities to share and discuss good practices would be helpful to further implement responsible management strategies in supply chains. In connection to this, it was also mentioned that a commonly accepted set of practical guidelines, that go beyond concepts would also be helpful for future strategy planning.

JEITA has been considered as one of the most useful platforms, and as such will continue to

play a crucial role in promoting further dialogue within its member enterprises. An issue into which JEITA might want to look at is, as raised by one member, to consider how to design fora that can involve like-minded organizations and non-traditional partners, such as the GCNJ or foreign chambers of commerce representatives/members that are active in Japan. A new framework which enables non-traditional stakeholders to partake and contribute to social dialogues must be sought. This is a task that requires significant coordination and buy-in activities, with complete consensus within and commitment by the national tripartite structure. It would also be beneficial to consider the application of new technologies that can enhance such an extended form of dialogue, including block-chain technologies.

One of the challenges highlighted is related to establish an industry-wide mechanism to ensure level playing field in the socially responsible business practices, which would be beneficial if it could be further shared and discussed with non-traditional partners in new sectors, such as infrastructure, in which electronics enterprises are increasingly involved in. Because enterprise activities expand dynamically and go beyond the traditional segmentations of commodity-based sectors, the need to design and operationalize such cross-sectional platforms would be the next challenge to further promote responsible conduct in an ever expanding supply chains.

#### 3.2 Policy support

As argued in 2.d, because of the significant positive externalities that responsible corporate conducts have on local economies in which supply chains operate, both host and home governments can play catalyst roles by providing additional incentives to enterprises that conduct such good business practices. In this, inter-government coordination would be necessary. Such discussions may be effective if an active tripartite-plus structure would be in place.

Good practices are only effective and meaningful within particular contexts. For the electronics industry, as argued in the previous section, connections between firms in the GSCs differ according to product architecture, which are technologically determined. Support should thus

reflect this diversity, and focus on the promotion of win-win mechanisms between (1) MNEs and workers in FDI-units, (2) MNEs and local suppliers.

(1) would entail issues such as the alignment of labor standards of both host and home countries, so that there will be a level-playing-field established.

(2) would entail policy support to enable local enterprises to connect to the electronics GSCs (backward linkages), which should require the upgrading of technical contents of those local businesses as well as technical and vocational education and training (TVET). Policy support to promote collaboration between MNEs and such TVET systems would be highly effective. The other issue is that non-traditional government agencies in relation to employment and decent work, such as the ministries of economy, commerce or industry, should also be involved in the designing

and implementation of such programs. This calls for enhanced inter-ministerial coordination, particularly from the host country side.

### 3.3 MNE Declaration

The ILO's MNE Declaration could, in the future, better reflect some of the concerns raised in this paper in terms of the challenges associated with GSCs. One of such is related to the relationships of MNEs with offshore suppliers, which constitute the majority of governance relationships in contemporary GSCs. This is not necessarily well articulated in the present version of the MNE Declaration.

Another is enhanced publicity of the Declaration itself, through better information dissemination with concrete action guidelines that are in line with the Declaration.

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