



International
Labour
Organization

Decent Work in
Garment Supply
Chains Asia



Sweden
Sverige

► Productivity interventions available to garment factories in Asia: A mapping study



- ▶ **Productivity interventions available to garment factories in Asia: A mapping study**

Copyright © International Labour Organization 2021
First published 2021

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

ISBN: 9789220342886 (Web PDF)

Productivity interventions available to garment factories in Asia: A mapping study

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

Printed in Thailand

▶ Contents

▶ Acknowledgements	iii
▶ Executive summary	iv
▶ Abbreviations	viii
▶ 1. Introduction	1
▶ 2. Methodology	3
2.1 Research methods	3
2.2 A framework for designing productivity-enhancing interventions	4
▶ 3. Background	6
3.1 Asian garment production in 2020	6
3.2 Productivity levels in Asian garment exporting countries	8
▶ 4. Productivity-related interventions available to Asian garment factories	12
4.1 Profile of study participants	12
4.2 Focus areas	15
4.2.1 Integrated approach	15
4.2.2 Adjusted to factory capacity	17
4.2.3 Orients towards action	19
4.3 Approaches	20
4.3.1 Inclusive vertically and horizontally	20
4.3.2 Scalability and beyond tier 1	21
4.3.3 Sustainability	23
▶ 5. Conclusions and recommendations	24
5.1 Summary of findings	25
5.2 Recommendations	26
▶ References	30
▶ Appendix I: Organizations initially included in the mapping study	33
▶ Appendix II: Organizations who participated in the study	40

List of figures

Figure 1. Total export values of the top Asian garment-exporting countries and territories and percentage of total global garment exports in Asia, 2018	7
Figure 2. Garment industry share in goods exports and share in manufacturing value added, selected garment exporting countries	7
Figure 3. Total employment in the garment sector, share of garment sector jobs in total employment and share of garment sector jobs in female employment selected garment exporting Asian countries, latest available year	8
Figure 4. Garment industry labour productivity, selected countries & industries, latest year available	9
Figure 5. Garment industry labour productivity index, selected countries, 2010–19	10
Figure 6. Study respondents according to stakeholder grouping	14
Figure 7. Geographical distribution of study participants	14

List of tables

Table 1. Initial stakeholder groups included in the mapping study	3
Table 2. Criteria for designing productivity-enhancing interventions in the garment industry	4
Table 3. Real labour productivity growth in the garment industry, compounded annual growth rate, most recent time period available	10
Table 4. Data categorized by stakeholder type	13
Table 5. Summary of study results	25

► Acknowledgements

The authors would like to express their gratitude first of all to the respondents in the study who generously provided information about their productivity services.

Laurel Anderson Hoffner, consultant with the Decent Work in Garment Supply Chains Asia project, and Sara Andersson, Technical officer, are the authors of the report. Colleagues David Williams and Charles Bodwell provided overall technical guidance and support. Several other colleagues from the International Labour Organization contributed to the data collection, and the authors in particular recognize the contributions from Alix Machiels, Lee Dong Eung, Ravindra Peiris and Wade Bromley. The Asia Society for Social Improvement and Sustainable Transformation also contributed to the data collection process. Consultant Souleima El Achkar prepared labour productivity estimates for the study with support from the ILO economist Phu Huynh.

The study was copy edited by Karen Emmons, and Nattawarath Hengviriyapanich was responsible for the design.

Last, the authors would like to acknowledge the Government of Sweden for the funding provided by the ILO-Sida Decent Work in Garment Supply Chains Asia project that made the report possible.

► Executive summary

The garment industry has made significant contributions to the socio-economic growth and development of many countries across Asia. In 2019 alone, 65 million workers – the majority of them women – were employed in the industry throughout the region, accounting for 3.4 per cent of total employment. Yet, despite the importance of the garment industry in recent decades, productivity remains low relative to other manufacturing industries.

According to study estimates, the industry's productivity levels are still lagging behind the manufacturing average in most countries. Furthermore, real labour productivity growth in the garment industry (average annual growth over the most recent available period), has increased only in four of the eight Asian countries for which this was calculated. Addressing productivity gaps is critical for ensuring continued competitiveness and improved working conditions in the garment industry in Asia as shorter production timelines, increasing labour costs and the development of new digital technologies challenge the established and traditional ways of working.

This paper assesses the availability and quality of interventions to improve the productivity of factories operating in the Asian garment industry and to document good practices, missing gaps and opportunities to advance support.¹ For this study, "interventions" are defined as training or other advisory support delivered to garment factories by an external organization to improve productivity levels. Although various factors ultimately influence the productivity levels of garment factories, this study focuses on the availability of productivity interventions, which could be an important means for factories to improve their productivity over time while also promoting more opportunities for decent work. By examining a subset of productivity interventions available to the industry, the paper depicts a broader picture of what type of support services are available to Asian garment factories.

The study collected and evaluated data according to a framework developed by the International Labour Organization (ILO) and published in a working paper in 2019.² That paper emphasized how productivity interventions can help to secure the garment industry's future competitiveness and sustainability while also promoting decent work opportunities. Based on a review of literature addressing factory needs in the Asian garment industry, the working paper arrived at six criteria to be applied when designing productivity-enhancing interventions. These criteria aim to ensure that such interventions achieve maximum impact.

The criteria as well as this study's participants' application of them are as follows:

1. Interventions should take an integrated approach towards productivity improvements by taking into account working conditions, gender dynamics and environmental practices. Most of the productivity service providers who participated in the study acknowledged they cover gender equality, environmental sustainability and working conditions in their interventions. However, the extent to which interventions incorporated these elements varied by the type of stakeholder overseeing the intervention. For example, the majority of individual consultants and consultancy firms included in this study explained that they tend to focus primarily on productivity, whereas the development partners and buyers that were included are more likely to support projects focused on working conditions, with a secondary goal of improving productivity. The data reveal that there needs to be greater effort to integrate gender, environment and working conditions when delivering productivity initiatives.

1 In this paper, "productivity" generally refers to production efficiency on the factory floor through interventions that enable greater productive output per unit of input relative to labour and factory processes.

2 ILO 2019a.

- 2. Interventions should be adjusted to the current capacity of factories.** The majority of productivity service providers engaged in this study focused interventions on improving factory processes and practices rather than investing in new technologies. This aligns with the ILO framework for interventions, which suggests that, given the current capacity of the majority of garment factories in Asia, investment in worker productivity should be prioritized because it can offer high returns relative to the level of investment.
- 3. Interventions should orient factories towards action.** Most of the interventions highlighted in this study were tailored to specific factories' needs and grounded in practical process improvements and related skills. These interventions were typically delivered in-factory and were action-oriented, as opposed to theoretical. This approach aligns well with the ILO framework, which suggests that factories receive more value from practical improvement support than generalized or theoretical support.
- 4. Interventions should be inclusive and ensure a wide reach, both horizontally and vertically.** Most productivity interventions included in this study engaged employees from various levels, including the production line, line managers and senior managers. In addition, both women and men were engaged during the service delivery. This meets the standards proposed in the ILO framework, which states that productivity improvement programmes should include a range of actors to ensure widespread adoption and sustainable implementation.
- 5. Interventions should be scalable and go beyond tier 1 of the supply chain to maximize impact.** Most interventions included in this study worked directly with tier-1³ suppliers, and there appears to have been limited effort from providers, buyers and development partners to ensure that the interventions reached lower-tier suppliers or small and medium-sized enterprises. There also appears to have been a lack of demand for productivity interventions across all tiers, but especially among non-tier-1 suppliers. Given the lack of such interventions across the full length of the supply chain, as proposed by the ILO framework, further support to expand the reach of productivity interventions is needed.
- 6. Interventions should be designed in a way that ensures continuation of the intervention model and its sustainability in the long term.** The sustainability of interventions considered in this study was limited, given the resource-intensity in terms of time and finances and the level of dependence on buyers and international donors. Accordingly, the majority of productivity service providers did not meet the sustainable approach outlined in the ILO framework.

This study looked at the quality of productivity interventions by applying the six criteria from the ILO framework. An important finding is that productivity in the garment industry is often overlooked despite its immense potential for positive impact on both working conditions and factory competitiveness. It appears in the study findings that both the supply of and demand for productivity interventions are limited. In terms of supply, the study found that local productivity service providers were few in most countries.⁴ Whereas for demand, lack of time and financial resources were reported as common constraints to participation for factories that hesitated to make use of available interventions.

3 Throughout this paper, tier-1 factories refer to factories that have a direct relationship with the buyer, while tier-2 factories are subcontractors for tier-1 factories. Tier-1 factories tend to have more professionalized operations and visibility on the international level than those found at the lower tiers of the supply chain. Tier-2 factories provide a variety of services, ranging from cut and sew to washing to embroidery operations.

4 There was an expectation that in some countries, such as China, productivity-related interventions are more accessible to the industry. But the study authors were only able to engage a few respondents in China, so this could not be validated.

The study also emphasized the unique roles that various stakeholders currently have in making productivity-related interventions available to factories. Development partners and buyers have an important role in providing financial support and influencing factories in the upper tiers to partake in offered activities. Consultants and consultancies, together with employer and business membership organizations (EBMOs) and training centres, have an important role in delivering productivity interventions to the industry. Governments and EBMOs sometimes fill an important role in communicating the potential benefits of productivity improvements and promoting awareness of productivity-related interventions.

The paper concludes with four recommendations for how to make productivity interventions more accessible to factories operating in the garment industry, by addressing both demand and supply.

1. Make clear the business case for investing in productivity interventions to increase demand.

Increasing the availability of productivity interventions to the garment industry will not be possible unless there is a demand for them. To enhance demand for productivity interventions, there needs to be a continued shift in focus within the industry, from working to lower labour costs to a more systematic view of improving factory operations. Various stakeholders can take on an important role in making the business case and in highlighting potential returns for productivity improvements more clearly to garment factories. This effort should be done in a systematic and collaborative manner at the national and local levels, driven by governments, EBMOs and unions, with the support of other stakeholders.

Activities such as information sessions, awareness-raising campaigns, seminars, webinars and fairs could be utilized to present factories with the business case.

In addition, greater efforts should be made to document the results of productivity-related interventions and to communicate this to a broader group of factories. Efforts to support existing productivity service providers in communicating the positive impact of delivered interventions to factories can enable these providers to expand their customer base over time.

2. Address structural barriers that currently limit the demand for productivity-related interventions. To further increase demand, efforts should be made to address the barriers that hinder many factories from pursuing productivity interventions. The lack of demand for productivity interventions appears to be mainly due to the time and financial constraints of garment factories. While this is a longer-term effort, structural impediments, such as factories' low profit margins and the industry's decreasing turnaround times, must therefore be redressed. Until these barriers shift, investment into productivity interventions for factories, especially among factories beyond tier 1, will likely remain limited.

Achieving this shift will require continued efforts by governments, EBMOs, unions, development partners, international organizations, brands, manufacturers, non-government organizations, multi-stakeholder initiatives and academics to alter purchasing practices and rebalance power dynamics within the industry so that profit margins can better support investment into productivity interventions. This topic has risen in importance in industry dialogue forums in recent years, yet progress remains limited. Therefore, to facilitate solutions, all parties should engage or continue to engage in innovative pilot projects and policy frameworks to develop viable solutions.

- 3. Increase the supply of and demand for productivity-related interventions by exploring new models of service delivery.** Productivity service providers who are interested in offering their interventions to a larger group of garment factories must attempt to make them better suited for factories. This includes making interventions more financially viable for factories to purchase.

Decreasing resource-intensity of interventions could increase the market for them as well as enhance their sustainability by reducing reliance on support from international organizations or buyers. However, when adjusting interventions, efforts should be made to ensure that they still have valuable impact by building on existing cost-efficient and meaningful approaches. This could include leveraging more long-term group coaching models or innovative learning approaches, such as the peer educators of the Business for Social Responsibility's HERproject. Consultants should also consider how to combine training support with simultaneous independent implementation over an extended term, transferring some of the ownership of interventions to factories to manage improvement processes more autonomously.

Building local capacity in garment-exporting countries is also another way of decreasing the resource-intensity of available interventions. While there were local consultants offering productivity-related interventions in most countries included in the study, the number of local productivity service providers was limited in each country, aside from India. Efforts should be made to expand the availability of local service providers as a means to decrease the financial cost and improve the sustainability of interventions, as is done in the ILO's Sustaining Competitive and Responsible Enterprises programme. Governments should continue to invest in building local capacity and could collaborate with regional organizations, such as the Asian Productivity Organization, to build up local capacity over time.

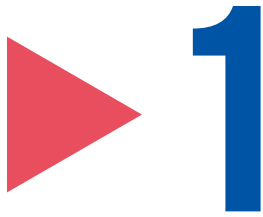
- 4. Increase the allocation of financial resources to expand the availability of productivity interventions.** Considering the important role of development partners and buyers in making productivity-related interventions accessible to garment factories, this study concluded that additional resources should be allocated towards productivity interventions. Governments, international organizations, buyers and industry-based organizations should consider utilizing financial resources to subsidize or offer financial incentives to factories to make interventions more accessible in the short term. This would increase the supply of productivity interventions in the local market by enabling productivity service providers to establish themselves and build their reputation. And it would subsequently support increases in demand. However, as suggested in the previous recommendation, this needs to be combined with an effort to make productivity interventions accessible to a larger group of garment factories by identifying new innovative ways to deliver these interventions.

Creative approaches to the payment model should also be considered by productivity service providers. For instance, they could consider a mixed-costing method based on a fixed component and a variable success fee based on factories' levels of productivity improvement. They could also consider longer-term payment schedules or developing financing options through industry associations, governments or banks. Consultancy firms could also demonstrate the value of their interventions by providing complimentary assessments to individual factories to estimate the cost-savings potential of enhanced productivity efforts.

► Abbreviations

BSR	Business for Social Responsibility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
EBMO	employer and business membership organization
GVA	gross value added
ILO	International Labour Organization
KPI	key performance indicator
NGO	non-government organization
P.A.C.E.	Personal Advancement and Career Enhancement
SME	small and medium-sized enterprise
SCORE	Sustaining Competitive and Responsible Enterprises

All \$ currencies are United States dollars.



Introduction

Although garment manufacturers in Asia currently dominate the production of ready-made garments, when compared with other manufacturing industries, productivity in the Asian garment industry is still considerably low. Most manufacturers in Asia are small, locally owned production units characterized by decent work deficits and low productivity levels in need of support to upgrade their operations.⁵ On the whole, the garment industry still relies heavily on labour-intensive methods.⁶

The low productivity levels in the industry are the result of several factors: An abundance of low-wage workers and preferential trade agreements have contributed to garment factories in Asia remaining competitive without requiring high levels of productivity and have not incentivized factories to invest in improving operations. In the region, minimum wages for garment workers remain low, although this varies across countries. For example, in Cambodia, the minimum wage in the garment industry is \$190, and in Myanmar and Bangladesh, it is \$85 and \$95, respectively.⁷ External factors, such as limited infrastructure (electricity, roads, etc.), poor implementation and enforcement of government policies and lack of financial services in many garment-exporting countries, create a difficult environment for manufacturers to operate in and to focus efforts on improving productivity.

Structural dynamics and power imbalances in the garment supply chains are also making it difficult for garment manufacturers to emphasize factory upgrading and improve productivity levels. In a 2016 study, the International Labour Organization (ILO) pointed to the unequal relationship between actors operating in the garment value chain when stating, “The sheer volume of its purchases grants [buyers] substantial bargaining power in an asymmetrical market relationship, where a buyer can negotiate prices and specify what, how, where and by whom the goods it sells are purchased.”⁸

5 Merk 2014.

6 Admittedly, across Asia there are manufacturers operating today which have been able to take on more value-added activities in the garment value chain and that produce a substantial amount of exported garments every year. These manufacturers are often Chinese, Korean or Taiwanese and have production units in several countries to leverage the availability of low-cost labour and preferential trade agreements, as well as to reduce risk, and are supported by professional management and advanced operations. For further reading, see, for example, Merk (2014) or Posthuma (2010).

7 Chua 2020; Donaldson 2018; Elven 2018.

8 ILO 2016, 11.

The importance for factories to focus on productivity has been exacerbated in recent years by their declining profit margins, which has made it increasingly difficult for factories to stay afloat across the industry. For instance, Anner (2019) demonstrated that Indian factories saw their profits decrease, from 13.2 per cent to 9.5 per cent, over the five-year period from 2012 to 2017.⁹ In Bangladesh, Anner found that profit margins of supplier factories decreased by 13.3 per cent from 2011 to 2016.¹⁰ In another study, 52 per cent of suppliers from the textile and clothing industry who participated in an ILO global survey reported having accepted orders whose price did not allow them to cover their production costs.¹¹ The recent COVID-19 pandemic has financially strained the industry even more.

Another reason for factories to concentrate on improving productivity is that it is increasingly recognized as a factor of competitiveness.¹² Buyers are increasingly prioritizing factors other than cost in the sourcing process, such as end-to-end process efficiency, compliance with social and environmental standards, supply chain flexibility and supplier collaboration and development.¹³ This puts pressure on factories to produce garments faster and demonstrate agility in the production process while keeping costs low to ensure they at least break even – sometimes contributing to additional decent work deficits.¹⁴ Recent studies point to the fact that the COVID-19 pandemic will accelerate this development because buyers increasingly will consider suppliers' long-term competitive advantages, such as digital capabilities, speed, agility, professionalization of the workplace (including adherence to occupational safety and health standards) and sustainability. According to a survey conducted by McKinsey & Company, together with the industry magazine *Sourcing Journal*, 79 per cent of the international sourcing community believes that COVID-19 will accelerate flexibility and speed over the next year.¹⁵

Interventions to improve productivity hold great potential when it comes to ensuring Asian factories' sustainability and competitiveness over time. This is particularly true when considering factories' declining profit margins due to rising costs and squeezed prices as well as the changing and increasingly competitive environment in which they operate. In this challenging situation, productivity levels have are important in terms of determining overall production costs and ultimately manufacturers' ability to manoeuvre and sustain their operations.

This paper assesses the availability and quality of interventions to improve the productivity of factories operating in the Asian garment industry and to document good practices, missing gaps and opportunities to advance support. For this study, "interventions" are defined as training or other advisory support delivered to garment factories by an external organization to improve productivity levels. Although it is recognized that various factors ultimately influence the productivity levels of garment factories, this study focused on the availability of interventions that could be an important means for factories to improve their productivity over time while also promoting more opportunities for decent work. By examining a subset of productivity interventions available to the industry, the paper depicts a broader picture of what type of support services are available to Asian garment factories and that ultimately contribute to improving the situation for Asian garment manufacturers and their workers by ensuring that productivity interventions respond better to their needs.¹⁶

9 Anner 2019.

10 Anner 2018.

11 ILO 2017.

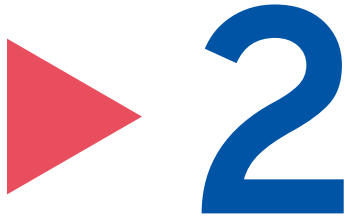
12 Saxena and Salze-Lozach 2010.

13 Berg et al. 2017.

14 For example, a study conducted by the ILO and International Finance Corporation's Better Work programme found that verbal abuse is more likely to occur in environments in which workers have low wages, supervisors' pay is linked to production levels and there are too many rush orders. For further reading, see Rourke (2014).

15 Berg et al. 2020.

16 These types of interventions should be complemented with efforts to address the structural impediments that constrain the ability of factories operating in garment supply chains to provide decent employment for workers and ensure future competitiveness. While profit margins of factories have declined in recent years, the industry as a whole remains highly profitable, indicating that this problem, to a large extent, is structural. And while productivity is indeed an important way for factories to unlock greater profits, there are structural factors that may continue to make profit-making difficult and that need to be addressed to ensure a more equal distribution of risk and reward in the supply chain.



Methodology

2.1 Research methods

The study followed a two-step research methodology to collect information on productivity levels in the Asian garment industry and to identify productivity interventions.

To better understand the productivity levels in the garment industry and to identify enablers and barriers for enhancing productivity of factories, the study began with desktop research. Organizations that could potentially offer manufacturers productivity-related interventions were identified and mapped out across nine stakeholder groups. Initially, more than 200 organizations in the Asia region that possibly could provide support or offer interventions related to productivity to manufacturers were found.¹⁷ Further information about interventions was then sought out through websites, reports or in other ways as part of the desktop process.

► **Table 1. Initial stakeholder groups included in the mapping study**

-
1. Consultancy firms and consultants

 2. Development partners and international organizations

 3. Non-government organizations, multi-stakeholder initiatives and initiatives

 4. Employer and business membership organizations

 5. Buyers

 6. Manufacturers

 7. Trade unions

 8. Training centres

 9. National government agencies

¹⁷ The list of organizations was progressively expanded as additional interventions were found online or through stakeholders participating in the study.

The desktop study provided the basis for the primary data collection process. The nine stakeholder groups were narrowed down to seven, and primary data were collected from a sample of organizations operating in the industry.¹⁸ Invitations to participate in the study were sent out to organizations (listed in Appendix I) for which contact information could be attained, unless sufficient information about their interventions was available online. Ultimately, primary data were collected from 48 organizations. As part of that process, a survey was sent out via email or the software programme Qualtrics to respondents or interviews were conducted virtually using Skype or Zoom. Secondary data were also collected through reports and other materials found online.

To analyse the prevalence of support available to factories and to what extent support meets the actual needs of manufacturers, data were coded and analysed based on a six-criteria framework outlined in a 2019 ILO working paper (table 2) and is further described in the next section.¹⁹

2.2 A framework for designing productivity-enhancing interventions

The ILO introduced a conceptual framework to assist in the design of productivity-enhancing interventions in the garment industry in a working paper published in 2019.²⁰ For this study, the framework was used to assess an intervention's ability to respond to stated needs of Asian garment factories and to achieve maximum impact. The framework consists of six criteria that are divided into two categories: "focus area", which present what should be the priority issues for any intervention in the garment industry, and "approach", which proposes a specific way to deliver a successful intervention.

► **Table 2. Criteria for designing productivity-enhancing interventions in the garment industry**

Focus area	Approach
► Taking into account working conditions and environmental practices, interventions should take an integrated approach to targeting productivity improvements.	► Interventions should be inclusive and ensure a wide reach, both horizontally and vertically.
► By focusing on management practices and skills, interventions should be adjusted to the current capacity of garment factories.	► Interventions should be scalable and go beyond tier 1 of the supply chain to maximize impact.
► Interventions should orient factories towards action .	► Interventions should be designed in a way that ensures continuation of the intervention model and its sustainability in the long term.

Source: ILO 2019a.

¹⁸ Because no productivity interventions delivered by trade unions and government agencies were identified in the desktop study, the study authors narrowed down the scope and focused on six stakeholder groups for which several productivity interventions had already been identified.

¹⁹ ILO 2019a.

²⁰ ILO 2019a.

According to the first criterion of the framework, interventions should target productivity improvements through an integrated approach that takes into account working conditions and environmental practices. This contributes to a sustainable garment industry over time and enables manufacturers to respond to demands from buyers to comply with social and environmental requirements. It can also benefit factories by reducing costs as well as turnover and absentee rates. Indeed, several studies have pointed to how improving working conditions as well as environmental sustainability can enhance the productivity and efficiency of factories.²¹

Second, by focusing on management practices and skills, interventions should be adjusted to the current (limited) capacity of many garment factories. Because profit margins leave little space for factories to bear further cost increases, focus should initially be on enhancing the efficiency of factories by improving processes and practices rather than increasing investments in new technology and machinery. Improving factory processes and practices requires far fewer resources than investing in technology but can yield great benefits in terms of increased productivity, especially when considering the highly labour-intensive nature of the industry.²²

Third, interventions should orient factories towards action. To certify that productivity-enhancing support results in permanent changes, interventions should be practical, adjusted to the needs of factories and appropriate to their capacity.²³ By mobilizing a continuous process improvement model, interventions can ensure that factories are better prepared for a more competitive environment and able to enhance operations over time.

When it comes to delivering productivity-enhancing interventions, or the approach, the fourth criterion highlights how interventions should be inclusive and ensure a wide reach, both horizontally and vertically. This will help factories to fully leverage their workforce to enhance the productivity of operations. Factory-improvement processes should be participatory and anchored in workplace cooperation arrangements, with a broad group of workers employed at different factory levels included.²⁴ This means supporting women and other potentially vulnerable groups, such as youth, who might otherwise be excluded from the factory-improvement process.²⁵

The fifth criterion suggests that interventions should be scalable and go beyond tier 1 of the supply chain to maximize impact. This will ensure that support reaches factories at the lower levels of operational development that typically make up the bulk of the industry at the national level. By targeting manufacturers beyond those with the most developed and sophisticated facilities in tier 1, interventions are also likely to reach those that are in most need of support but cannot access it.²⁶

Last and according to the sixth criterion, interventions should be designed in a way that ensures continuation of the intervention model and its sustainability in the long term. Such interventions should aim to build in the capacity to sustain impact over time and to be maintained and scaled up beyond the end of their donor-subsidized components. This requires local ownership of the intervention, transfer of new knowledge to local and national partners and that the intervention is financially viable.²⁷

21 Hurst 2013; Tufts University 2016.

22 Hearle 2016.

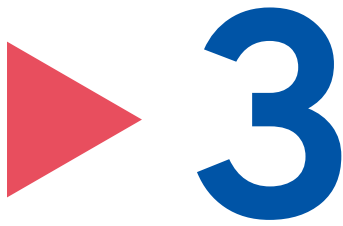
23 BIF, n.d.

24 Jayawardana and O'Donnell 2009.

25 Naeem and Woodruff 2015; Macchiavello et al. 2015.

26 Macchiavello et al. 2015.

27 UNDP 2005; Bloom et al. 2013.



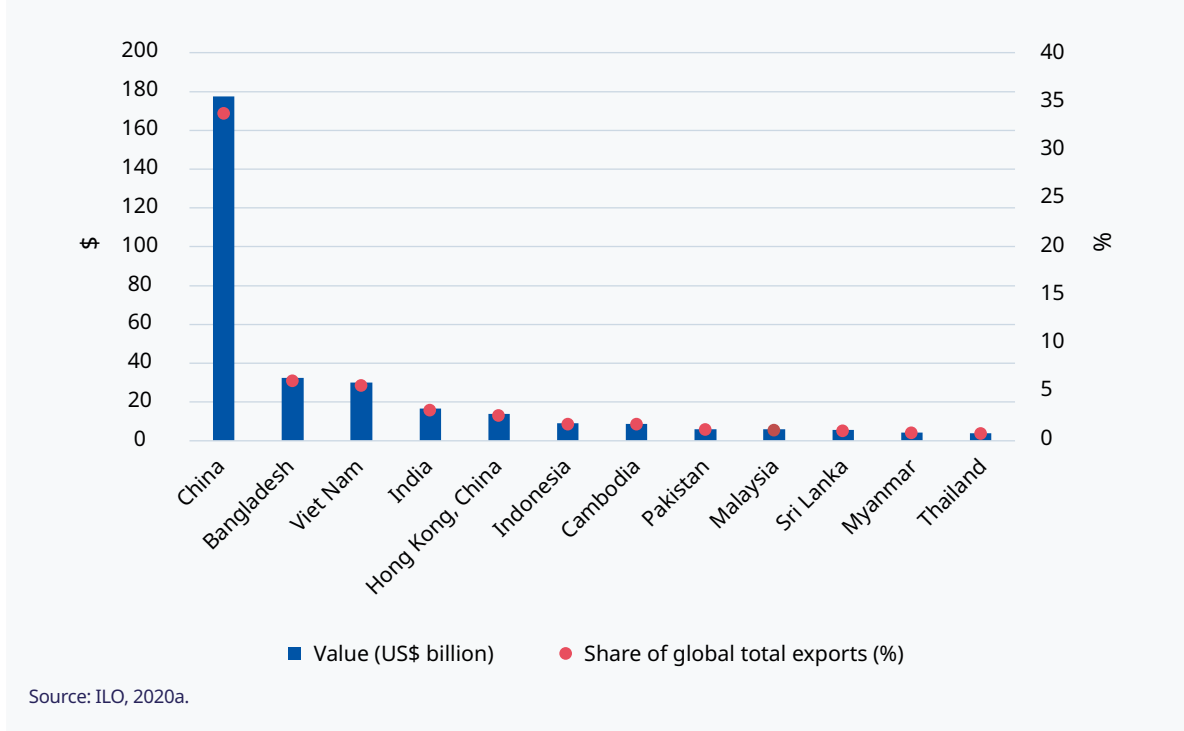
Background

3.1 Asian garment production in 2020

In the past decades, there has been considerable growth of manufacturing units at the lower end of the garment value chain in developing countries in Asia. The garment industry is important for many Asian economies due to its significant contribution to their gross domestic product. It has enabled countries to earn foreign exchange and extend income and employment opportunities for millions of workers. As one of the first industries adopted by countries attempting to industrialize their economy, the garment industry has been a major player in terms of socio-economic development. For China, India, Viet Nam and others in the region, it connected them to global supply chains and international markets.

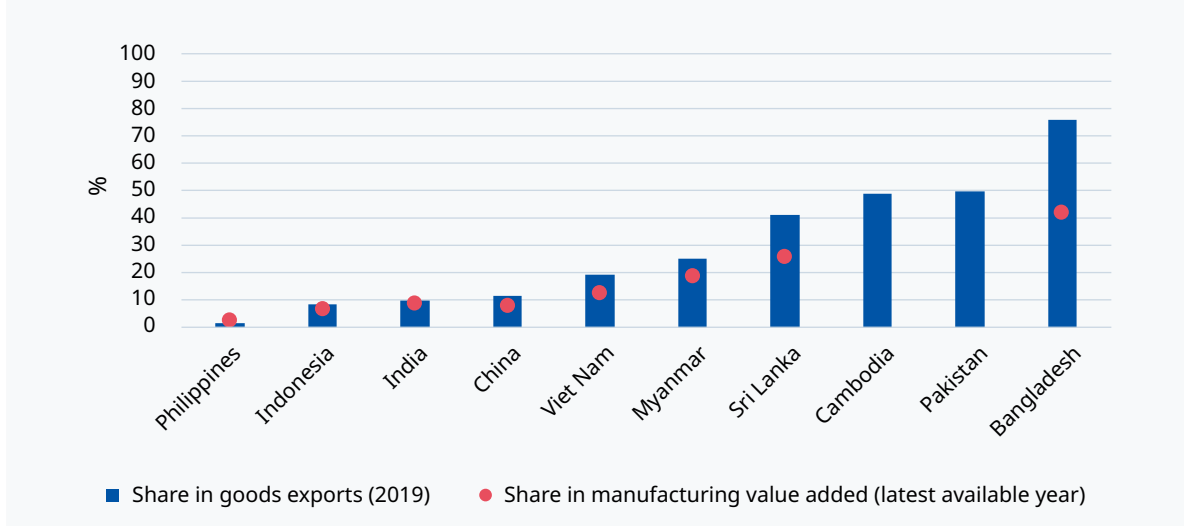
In 2018, Asian countries exported \$341 billion worth of garments, accounting for the largest share of global exports, at approximately 64.7 per cent.²⁸ Exporting approximately \$178 billion, or 33.7 per cent, of global garments in 2018, China is the world's largest garment-exporting country (figure 1). Bangladesh is the second-largest exporter, with around \$32 billion, or nearly 6.2 per cent, of the 2018 global market share. The third-largest garment exporter in the world is Viet Nam, which exported approximately \$30 billion, or nearly 5.7 per cent, of the 2018 global exports. Other large garment exporters in the region include Cambodia, India, Indonesia and Pakistan, which are among the top-15 garment-exporting countries in the world.

► **Figure 1. Total export values of the top Asian garment-exporting countries and territories (US\$ billion) and percentage of total global garment exports in Asia, 2018**



For several Asian economies, the garment industry produces a hefty portion of the annual national exports. Notably, in Bangladesh, garment exports accounted for around 92 per cent of the country’s total goods exports in 2019. Similarly, garment and footwear accounted for 59 per cent of Cambodia’s total goods exports in 2019.²⁹ In other countries, the garment industry is of less, although still considerable, importance. For instance, China has shifted into higher value-added industries, and the garment industry now accounts for roughly 15 per cent of total goods exports.

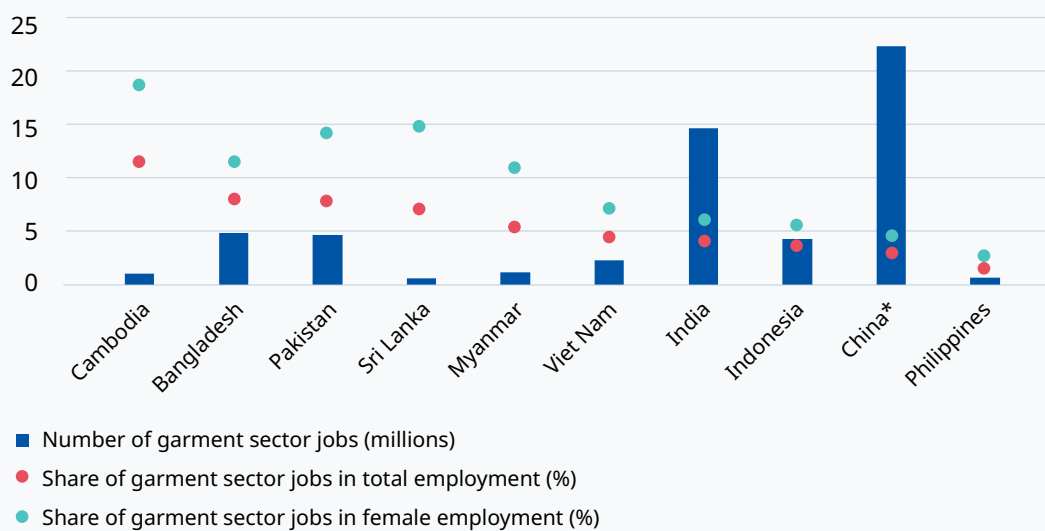
► **Figure 2. Garment industry share in goods exports and share in manufacturing value added, selected garment exporting countries**



29 ILO 2020b.

The garment industry is also highly important for many Asian countries from an employment perspective. For example, the garment industry account for nearly 8 per cent of total employment in 2017 in Bangladesh and for 11.5 per cent in Cambodia (figure 2). Other Asian countries in which the industry accounts for a large share of employment include Pakistan (at 7.8 per cent) and Sri Lanka (at 7.1 per cent).

► **Figure 3. Total employment (millions) in the garment sector, share of garment sector jobs in total employment (%) and share of garment sector jobs in female employment (%) selected garment exporting Asian countries, latest available year**



Notes: Data presented for China are ILO estimates for 2019. All other data points are based on the latest available data from national labour force surveys. Data refer to ISIC, 13-15.

Source: ILOSTAT.

3.2 Productivity levels in Asian garment exporting countries

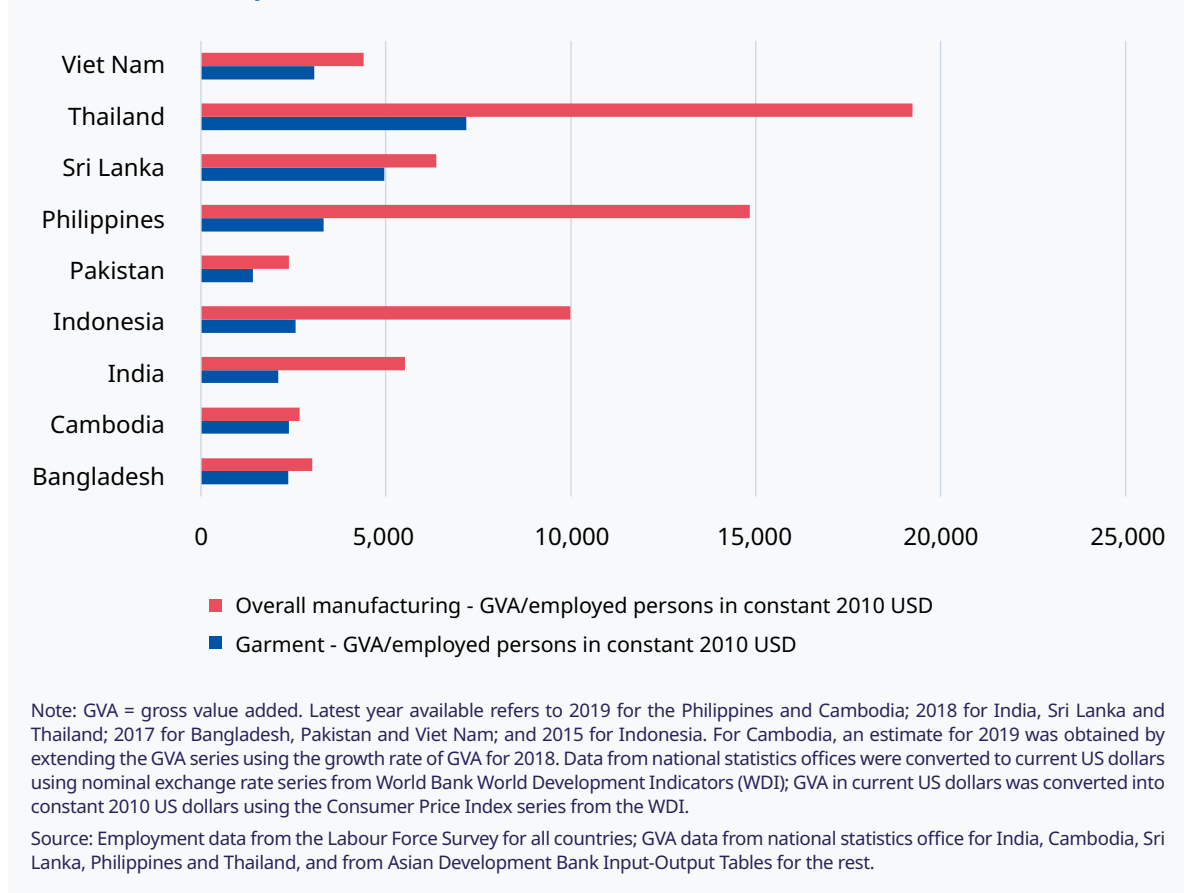
Overall, productivity levels in the garment³⁰ industry are still low. Based on the latest available data, in countries such as Bangladesh, Cambodia, India, Indonesia and Pakistan, labour productivity levels - defined as gross value added per employed person - ranged from approximately \$1,400 to \$2,600 (at constant 2010 prices). In both the Philippines and Viet Nam, it was higher than \$3,000. While it was close to \$5,000 in Sri Lanka, labour productivity exceeded \$7,000 in Thailand.

When comparing the garment industry with other industries, it is clear that while the industry's productivity levels are higher than in agriculture it is still lagging behind the manufacturing average in most countries. Notably, in Indonesia and the Philippines, countries that both have shifted towards higher value-added manufacturing such as electronics and automobile manufacturing, the overall manufacturing productivity levels are approximately 4 times greater than in the garment industry while it is approximately 2.6 times greater in India and Thailand.

30 Garments refer to garments, textiles and leather/footwear production, corresponding to ISIC groups 13, 14, and 15.

In other countries where garments continue to dominate industrial production, the difference between labour productivity in overall manufacturing and garments is understandably smaller. The ratio of garment industry productivity to overall manufacturing productivity was highest in Cambodia and Bangladesh with 89 per cent and 79 per cent respectively, in the last year for which data are available, followed by Sri Lanka (78 per cent), Viet Nam (70 per cent) and Pakistan (59 per cent).

► **Figure 4. Garment industry labour productivity, selected countries & industries (constant 2010 US dollars), latest year available**



Interestingly when looking at real labour productivity growth in the garment industry (average annual growth over the most recent available period), it has increased only in four of the eight Asian countries for which this was calculated, namely, in Bangladesh (3.4 per cent), Cambodia (4.9 per cent), Sri Lanka (1.5 per cent) and in Thailand (2.2 per cent). In other countries such as Indonesia and Pakistan, the decline in labour productivity levels was as much as 8.2 per cent and 5.3 per cent respectively on average annually. In these countries at least, this suggests that efforts to enhance productivity in the garment industry have been either absent or largely unsuccessful in delivering significant or sustained results.

► **Table 3. Real labour productivity growth in the garment industry, compounded annual growth rate (%), most recent time period available**

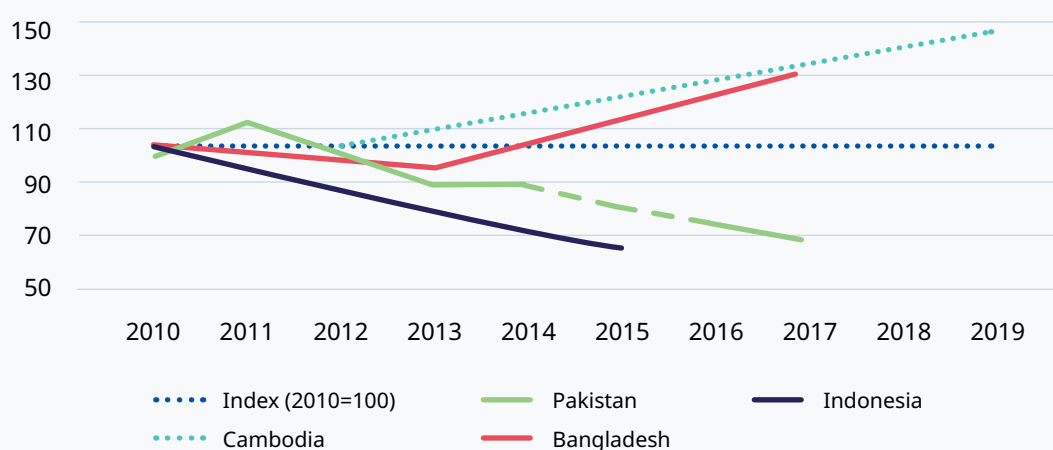
Country (time period)	Real labour productivity growth (%)
Bangladesh (2010–17)	3.4
Cambodia (2012–19)	4.9
Indonesia (2010–15)	-8.2
Pakistan (2010–17)	-5.3
Philippines (2010–19)	-2.3
Sri Lanka (2014–18)	1.5
Thailand (2014–18)	2.2
Viet Nam (2010–17)	-0.5

Note: National statistics office gross value added (GVA) data were converted to current US dollars using the nominal exchange rate series from World Bank World Development Indicators (WDI); the GVA in current US dollars data was then converted into 2010 US dollars using the Consumer Price Index series from the WDI. For Cambodia, the GVA series was extended from 2018 to 2019 and converted to constant US dollars using the growth rate of GVA and inflation for 2018 (assuming these rates apply in 2019) to correspond with the employment data from the 2019 Labour Force Survey.

Source: Computed using employment data from the Labour Force Survey for all countries; GVA data from the national statistics office for Cambodia, Sri Lanka, Philippines and Thailand, and from the Asian Development Bank Input-Output Tables for the rest.

► **Figure 5. Garment industry labour productivity index, selected countries, 2010–19**

a. Bangladesh, Cambodia, Indonesia and Pakistan

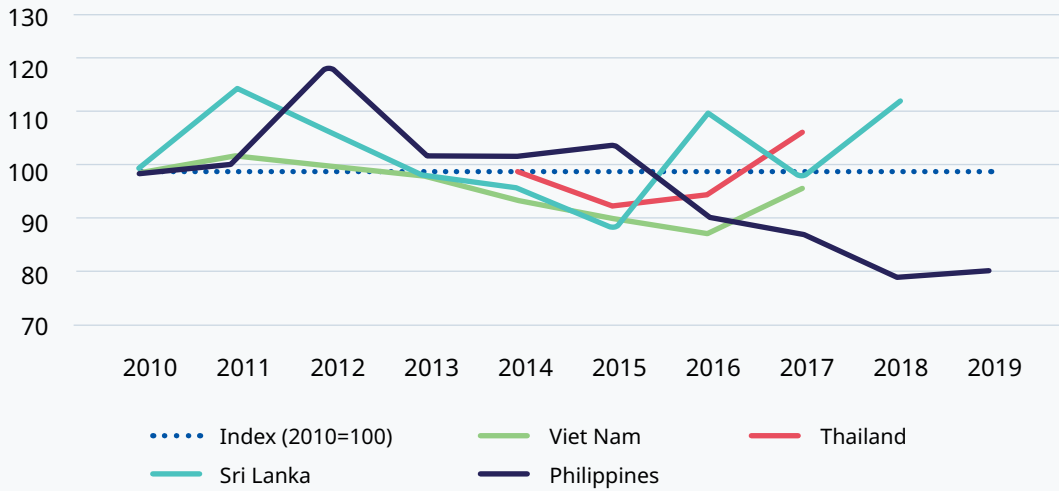


Note: Index 2010=100, except for Cambodia: 2012=100; dashed lines represent linearly interpolated labour productivity index data for years when the Labour Force Survey data are not available.

Source: Computed using employment data from the Labour Force Survey for all countries; GVA data from the national statistics office for Cambodia and from the Asian Development Bank Input-Output Tables for the rest.

► **Figure 5. (cont.)**

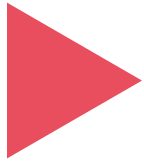
b. Philippines, Sri Lanka, Thailand and Viet Nam



Note: Index 2010=100, except for Thailand: 2014=100; dashed lines represent linearly interpolated labour productivity index data for years when Labour Force Survey data are not available.

Source: Computed using employment data from the Labour Force Survey for all countries; gross value added data from the national statistics office for the Philippines, Sri Lanka and Thailand and from the Asian Development Bank Input-Output Tables for Viet Nam.





4

Productivity-related interventions available to Asian garment factories

This study sought insights on the quality and availability of productivity-related interventions for Asian garment factories and to document good practices, missing gaps and opportunities for addressing them. The results of the study are presented in this section, which is structured around the ILO's six-criteria framework on optimizing productivity interventions in the garment industry.

4.1 Profile of study participants

As explained in the methodology section, the study initially involved more than 200 possible productivity service providers. As a result of the outreach to these organizations, 48 organizations that deliver productivity-related interventions to garment factories provided data (figure 5).³¹

The study revealed that organizations have differing roles in terms of ensuring that interventions are made accessible to factories. While the final sample consisted of a mix of individual consultants and consultancy firms, development partners, international organizations, EBMOs, NGOs, multi-stakeholder initiatives, buyers and manufacturers, considerably more individual consultants and consultancy firms participated in this study than other types of organizations. This is believed to be representative of the typical profile of productivity-related service providers. When development partners, buyers and sometimes EBMOs focus on productivity, they often contract consultancies to deliver such interventions to factories.

³¹ The remaining organizations either declined to participate in the study or did not reply to the initial outreach. In some cases, respondents indicated that they did not provide productivity interventions to garment factories and were thus excluded from the study.

It was challenging to find productivity-related consultants and consultancies despite using online search engines, LinkedIn and the ILO's in-country networks. This may be a result of these organizations not promoting their interventions extensively online, a limited overview of the industry on behalf of the researchers or, as suggested by many interviewees, an actual lack of service providers. Indeed, many of the consultants interviewed reported that they were not aware of many others who offered similar interventions, suggesting that the availability of consultancy services in the industry is limited in several countries.

International development interventions were identified through projects that included productivity as an objective. However, of these groups, few focused solely on productivity. In most cases, productivity was considered a secondary outcome.

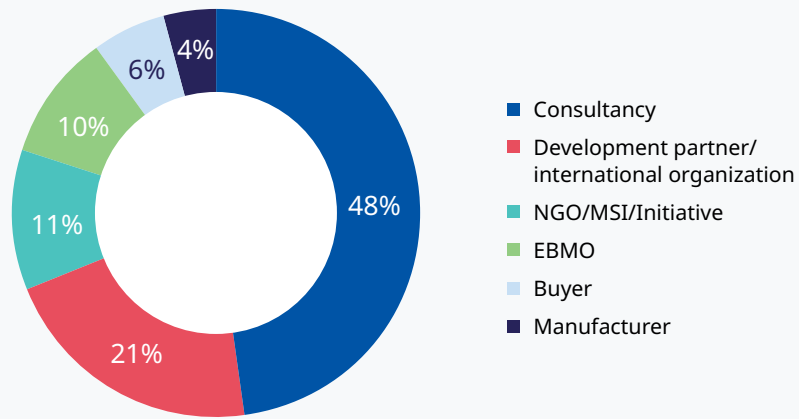
Each respective group had varying profiles in terms of the depth, type and quantity of the interventions they offered. Particular differences are highlighted in the following chart.

► **Table 4. Data categorized by stakeholder type**

	Consultancy firms and consultants	Development partners & international organizations	EBMOs	NGOs, multi-stakeholder initiatives & initiatives	Buyers	Manufacturers
Number surveyed	23	10	5	5	3	2
Who pays?	Mostly factories, but varies	Mostly development partner or international organizations, but varies	Mostly factories	Varies	Buyer	Factories
Factory size	Mostly large, but varies	Varies	Large	Varies	Large	Large
# of factories	Varies	Usually fewer than 50	Varies	Varies	Fewer than 50	Fewer than 50
Level of customization	Mostly custom, sometimes with standard components	Varies	Usually generic	Usually custom, but varies	Varies	Usually custom
Types of factories (tiers)	Mostly tier 1	Mostly tier 1	Varies	Varies	Mostly tier 1	Tier 1

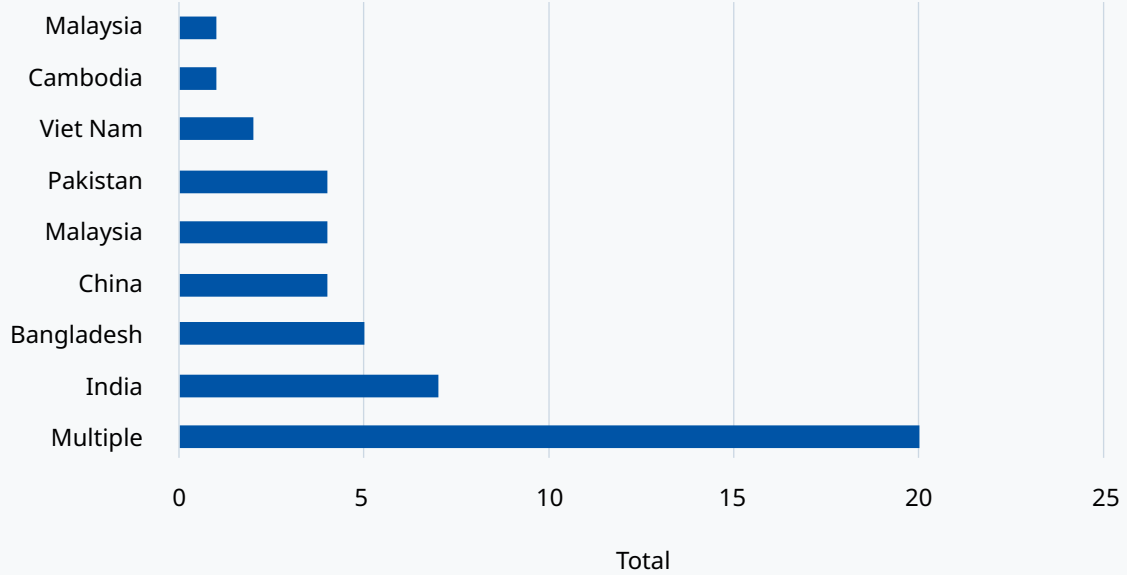
Note: EBMO=employer and business membership organization.

► **Figure 6. Study respondents according to stakeholder grouping**



Note: MSI=multi-stakeholder initiatives; EBMO=employer and business membership organization.

► **Figure 7. Geographical distribution of study participants**



4.2 Focus areas

4.2.1 Integrated approach

a. Working conditions considered and integrated

Although many respondents were of the opinion that improved working conditions led to productivity improvements, the extent to which working conditions were considered in interventions was influenced by the profile of the funding partner.

Most of the development partners and international organizations involved in this study indicated that productivity improvements are a secondary objective of their interventions, and their focus is primarily on improving compliance issues or working conditions. For example, the Labour and Social Standards in Pakistan's Textile Industry project implemented by GIZ did not initially consider improved productivity as a goal. Instead, productivity was later incorporated as a way to motivate factories to participate after the project found that factories were otherwise reluctant to invest time and resources into the project, which aimed to solely improve working conditions. The incorporation of a productivity dimension to the project yielded noteworthy results in terms of improvements of productivity, efficiency quality and waste, alongside improved working conditions.³²

Some interventions that mainly dwelled on improving working conditions in factories also considered how they impacted productivity levels in the factory. For example, a study conducted in Viet Nam by Better Work, an ILO and International Finance Corporation initiative that targets both improved working conditions and increased competitiveness within the garment industry, found that when workers were concerned about verbal abuse in the workplace, they took approximately one additional hour per day to reach production targets.³³ Better Work addresses these interlinked areas by concentrating on both working conditions and productivity together, which has yielded considerable positive returns across a number of interventions. For instance, workers who had the opportunity to participate in basic skills training to improve productivity in the Better Work factories in Viet Nam reached production targets approximately 15 minutes sooner than the non-participants did. Both approaches to improving working conditions demonstrated gains in productivity.

For respondents who concentrate on productivity improvements as a primary objective, mainly individual consultants, consultancy firms, EBMOs and training centres, most indicated that they indirectly consider working conditions in their service delivery, although the extent to which working conditions are considered varied widely. For instance, some considered lighting and ergonomics as part of improving productivity, whereas others considered managerial or other forms of soft skills training as contributing to enhanced productivity as well as improved working conditions.

b. Environmental issues considered and integrated

Two thirds of the study respondents indicated they considered environmental issues in their interventions. Of them, many targeted resource efficiency, such as energy and wastewater, which the individual consultant and consultancy firm respondents said were in high demand among buyers, development partners and factories.

The Centre for Energy Environment and Productivity in India, a consultancy firm, carried out a total productivity study for a large garment manufacturing unit in Bangladesh. One of their recommendations was to collect all the fabric cuttings generated in the shop floor, which was previously being disposed as waste, and use it in an incineration boiler for steam generation as a way

³² GIZ, n.d.

³³ Better Work 2020.

to reduce inputs. The steam generated was used to iron garments. This resulted in a reduction of natural gas consumption for ironing by approximately 30 per cent and a greenhouse gas reduction of 2,500 tonnes per year. They also suggested recycling water from the potassium permanganate spray booth in the factory's jeans manufacturing section, which led to a savings of 3,500 cubic metres of water per year.

c. Gender equality and non-discrimination considered and integrated

More than half of respondents indicated that gender equality, women's empowerment and/or non-discrimination were considered either directly or indirectly in their productivity-related interventions. Even though the survey did not specifically ask what this entailed, this number may be partially due to the predominance of women in garment industry employment in the region and the importance of these issues for certain stakeholders, including in particular for buyers, development partners and NGOs.

The garment industry is the primary livelihood for one fifth of women living in South-Eastern Asia,³⁴ and women account for approximately 80 per cent of the industry's workforce globally.³⁵ Given its prominence as an employer of women and the documentation of decent work deficits throughout the industry, garment stakeholders, primarily brands and international donors, have invested tremendously in interventions designed to address gender equality or women's empowerment within the global garment industry. Programme evaluations show that some of these programmes also deliver business benefits, including increased productivity, reduced absenteeism and improved employee satisfaction. The importance of these integrated approaches is noteworthy because improved productivity may help factories increase their margins and decrease turnaround times – two factors that can exacerbate poor working conditions.

The Business for Social Responsibility's (BSR) HERproject is an example of a long-standing intervention involving global brands, their suppliers and local partners to create and implement workplace-based interventions on health, financial inclusion and gender equality. Through the HERproject, women are supported to develop leadership skills and to contribute to more productive and profitable businesses. A HERproject conducted with a global retail chain measured a 4.5 per cent decrease in employee turnover and a 22 per cent decrease in products requiring rework, signalling stronger efficiency and accuracy in products made by these workers across 37 factories in six countries. In another assessment conducted by the organization in Pakistan, women who improved their personal hygiene as a result of factory trainings reported a 25 per cent reduction in poor concentration at work, 28 per cent lower absenteeism and 33 per cent less difficulty in meeting production targets.³⁶

The Personal Advancement & Career Enhancement (P.A.C.E.) workplace education programme initiated by Gap Inc. has contributed towards professional and personal growth of female garment workers. This programme teaches women managerial, interpersonal, organizational and other practical skills. At the end of the programme, the proportion of P.A.C.E. participants with a high level of work efficacy more than doubled, rising from 27 per cent to 59 per cent. This reflects the benefits of investing in women at the workplace to make productivity and efficiency-related improvements.

34 ILO 2020.

35 ILO 2019c.

36 BSR, n.d.

4.2.2 Adjusted to factory capacity

a. Duration of intervention

Almost three fourths of the productivity service providers interviewed for this study exclusively provided longer-term interventions, lasting anywhere from a couple of months up to more than a year. Typically, such support would include an initial intense phase of workplace engagement followed by in-factory check-ins until the process had been completed. While this approach drives meaningful results, these types of interventions are highly resource-intensive in terms of time and financial investment. More than half of the respondents in the study provided interventions to fewer than 50 factories per year, with half of this group (approximately one fourth in total) offering interventions to fewer than ten factories on an annual basis.

Kaizen Institute implements one of the longer-running programmes examined in this study. The intervention is directed primarily towards changing factory culture to focus on continuous improvements and takes around two years to implement. However, given its emphasis on continuous improvement, the intervention does not have a specific end date. Kaizen Institute uses a systematic methodology with six-month “sprints”. Typically, four sprints, or two years, are required with a factory and yield extensive productivity improvements. Kaizen consultants spend one to two weeks every month at a factory to concentrate on building the organizational culture of continuous improvement by working closely with the employees.

Around one third of the service providers reported that they deliver either a mix of short- and long-term interventions or exclusively short interventions to garment factories. Short interventions refer to engagements involving a one-day workshop or a visit spanning less than a week. In these types of activities, they deliver general recommendations to factories rather than support measures for those factories. This approach was more common among EBMOs and buyers. The service providers indicated that the prevalence of this type of format is due in part to the costs for longer-running interventions being too high.

The Asian Productivity Organization, an intergovernmental organization established in 1961 to increase productivity in the Asia–Pacific region, offers a range of short-term interventions, such as conferences, forums, workshops, training courses and e-learning courses.³⁷ These initiatives, which are often offered under multi-country or in-country programmes, provide factories, consultants and government officials with the opportunity to learn more about productivity tools, techniques and methodologies.

b. Cost for participating factory

Costs for factories benefiting from productivity-related interventions vary extensively, based on the primary financier of an intervention and the nature of the intervention.

Based on the data collected in this study, factories were the largest group of funders for productivity interventions, and they were exclusively responsible for paying for interventions among one third of the productivity service providers. Mixed-funding models, in which funding comes from factories, development partners and/or other sources, were found to be the second-most common approach and accounted for nearly one third of initiatives. In the remaining cases, productivity efforts were funded by donors, followed by governments and EBMOs.

37 APO, n.d.

While factories accounted for the largest share of funders in this study, several respondents noted that it was difficult to get more factories to pay for interventions for several reasons, including lack of perceived value or awareness of such interventions, the high cost and time constraints. Those interviewed as part of this study explained that oftentimes factories participate due to pressure or requests from buyers. But some factories pursue such interventions on their own initiative, although this was perceived to be less common. Some large and professionalized factories, such as Shahi Exports in India, which employs approximately 100,000 workers, had their own full-time staff dedicated to productivity improvements across their multiple factories.

Among the consultants who were willing to disclose their fees, the cost ranged from \$200 for one day of support to \$70,000 for interventions delivered over a period of six to 12 months.

The cost of training interventions offered by EBMOs are often nominal because they are courses at subsidized rates to members. For example, the Cambodian Garment Training Institute offers short courses on lean management, value chain mapping and how to conduct a work-study, which may cost between \$200 and \$400 for members of the Garment Manufacturers Association in Cambodia. Others offer one-day courses on similar topics for around \$20 per person per course.

Sometimes buyers also provide their own staff and services free of charge to factories to help them improve their operations over time or contract other organizations to do so. For instance, H&M employs its own industrial engineers to deliver individualized improvement interventions over an extended period of time to some of their more strategic supplier factories as well as to deliver standardized support to a broader group of supplier factories.

c. Focus on practices and processes

Given the labour-intensive nature of the garment industry, there is great potential to achieve higher productivity levels through investments in workers' skills and capacities as well as factory processes. All respondents in this study indicated that they primarily deliver interventions to enhance workers' skills and improve processes and systems within a factory, as opposed to investments in technical upgrading.

Interventions tend to cover worker communication, factory maintenance, supervision and leadership as well as specific technical skills required by workers in different positions. In addition, interventions often look at identifying, analysing and improving existing business processes to optimize performance. Typically, this is related to industrial engineering systems and includes line balancing or method and time studies. Process-related interventions targeting management systems, including lean management, 5S, total quality management, total productive maintenance and different human resource systems, are also common.

For example, TBM Consulting Group delivers lean management interventions to manufacturers in India. In one intervention in which they supported a garment manufacturing and exporting firm, interventions included establishing a best-piece flow within cellular line designs to address quality and equipment issues.³⁸ Implementation of lean practices resulted in reducing work in process inventory from 2.5 days to 1 day and improving productivity by 42 per cent (from 2.1 units to 3 units per person per day). In addition, the first-pass yield went up, from 85 per cent to 92 per cent, and changeover time reduced by 40 per cent.

In another case, Gherzi Consultants worked to improve productivity in a garment factory in Bangladesh by delivering in-factory training and refresher skills training courses to workers.³⁹ As a result, productivity in the factory went up by 37 per cent, production by 74 per cent and wages by 27 per cent in three years. The rejection rate also came down by 82 per cent.

4.2.3 Orients towards action

a. Practical training and guidance

All the respondents in this study pointed their productivity interventions on developing skills and improving processes that can be directly applied to factory operations. Interventions were often deployed within multi-layered and cross-functional teams that were responsible for implementing improvements, documenting changes and reporting back to the service provider and senior factory management. Many programmes began with a workshop and included the development of an action plan and the establishment of key performance indicators (KPIs), followed by practice on the factory floor.

Although their interventions are action-oriented, several study respondents expressed that it is challenging to ensure that beneficiaries continue to implement the knowledge and techniques once an initiative has ended. One reason proposed is that some interventions are driven by pressure from external partners, such as buyers or international organizations, and result in varying degrees of motivation and commitment among participating factories. Factories that have sought out and paid for productivity interventions according to their own initiative tend to be large-sized and are committed to ensuring they receive returns on their investments. These factories tend to work with consultancy firms and are sometimes repeat customers. Other large factories have their own dedicated teams internally.

Shahi Exports is one example of a company that provides its own productivity-improvement interventions. Their interventions tend to begin with a data collection period, which then informs the design of the intervention. Most interventions undergo a piloting stage before extending to all lines within the factory. Then prior to widespread implementation, line staff undergo an in-classroom presentation followed by training on the factory floor. Some staff are also trained to use tablets to track data from the intervention. Productivity projects also often include a half-day workshop for the core implementation team, comprising managers and higher-level staff.

b. Progress and results are measured

Most respondents, especially those offering longer-term interventions, indicated that they quantitatively measure the progress and result of interventions provided in-factory. For consultants in particular, this is critical to demonstrate the value of their interventions to existing as well as future clients. For interventions offered in external venues or that are shorter in duration, such as one-off standardized training courses, this is not the case for logistical reasons.

Typically, a baseline would be established at the beginning of the factory-improvement process using a set of selected KPIs. KPIs are often decided in consultation with the factory or with the buyer or donor. Commonly cited productivity-related KPIs include factory-efficiency percentages, worker-to-machine ratio, cut-to-ship ratio, order-to-ship ratio, on-time-delivery rate, average-style change over time, right-first-time quality, productivity per worker, line-output increase, reduction or rejection rate, reduction in lead time, reduction in absenteeism, labour turnover and increase in workers' earnings per month.

KPIs are reviewed periodically by the service provider through various means of communication, including visits. Depending on who is collecting the data, study respondents indicated that it can be more or less accurate. The data on improvements reported by factories are often verified and then the extent of improvement is mutually agreed. Sometimes, interviews are also conducted with managers and workers to document qualitative improvements in a factory. In some cases, individual performances are measured through pre- and post-training surveys.

BSR established an online impact portal for beneficiaries to report results and monitor quantitative and qualitative data. The organization's HERproject entails a series of programmes that run for 12–18 months. Participants in each programme create, maintain, update, submit and review various forms and reports throughout the programme cycle. The HERproject portal facilitates informed management of this work by serving as a centralized, shared hub for documentation and reporting.

c. Grounded in factory needs

The nature of the intervention dictates how programmes are tailored to a particular factory's needs. One-off trainings, which are often free or low cost, are less likely to be tailored to the specific outcomes of the factory, whereas long-term interventions offer customized data collection and solutions.

A majority of the service providers who participated in this study indicated that most of the interventions delivered were customized and tailored to factory needs. They often conduct a gap analysis or baseline study using experts who evaluate the factory to establish the current level of performance and to determine where scope for improvement is located in the factory. As part of that assessment, opinion and inputs from operators are often sought.

Buyers such as H&M, Inditex and Nike have implemented efficiency-enhancing projects together with some of their suppliers. For instance, H&M offers a six-month programme delivered by its own industrial engineers. The process is initiated through a factory assessment. Based on the results, a joint action plan and goals are established, and H&M then trains a factory team to address the targeted areas and to implement new procedures over an extended period of time.

4.3 Approaches

4.3.1 Inclusive vertically and horizontally

a. Different factory levels included

The survey found that nearly all of service providers' improvement processes included staff from various levels of a factory. This makes sense, given that involvement of employees from various levels is crucial for allowing an intervention to be implemented across the entire organization. It is especially important that buy-in from factory owners and managers are considered essential to the success of the intervention because productivity improvements often rely on systematic changes to the production system that require high-level approval and support.

In one factory in Tiruppur, India, the consultancy organization Impactt found that greater success in line balancing was achieved by involving human resources, industrial engineering and production teams to work together on workers' skill assessments, productivity improvements and industrial engineering training.⁴⁰ This type of horizontal engagement helped increase buy-in and ensured that the changes were sustained in the factory beyond the productivity intervention.

40 Hearle 2016.

Some respondents indicated that they support suppliers in using worker surveys to understand their employees' perceptions and to collect ideas related to potential working conditions and productivity enhancing opportunities. For instance, Nike developed an Engagement and Wellbeing Survey to measure engagement based on the experiences of individuals working in factories. The survey highlights areas where employees already feel supported and engaged and helps identify opportunities for factory management to improve employee engagement.

b. Both women and men included

Almost all the service providers said both women and men workers are welcome to participate in interventions delivered to factories. This is likely because, statistically speaking, the majority of workers who operate in areas where productivity changes are being made are women and the majority of managers who are overseeing the implementation are men.

One of the key findings of the joint ILO–International Finance Corporation's Better Work programme is that training female supervisors increases line productivity. In its Supervisory Skills Training component, participants work to further develop effective listening, communication, time management and work allocation skills. They also learn about supervisor responsibilities and workers' rights. Since 2014, more than 5,850 people have participated in the training. Evaluations of the training indicate that it has increased productivity by 22 per cent on average in the assessed factories, calculated as adjusted time to hourly target.⁴¹

4.3.2 Scalability and beyond tier 1

a. Number of factories benefiting from support

Overall, the number of factories that have benefited from productivity interventions appears insignificant to the total number of factories operating in Asia's garment industry. Nearly one third of service providers included in this study targeted between 11 and 50 factories per year. Interventions targeting fewer than ten factories per year as well as those targeting between 101 and 200 per year each accounted for about one fourth of the interventions.

Notably, the consultancy firms were spread across all categories, indicating that there is variety in size and scope of this type of service provider. Although this study did not cover all productivity-related interventions identified in the mapping exercise and beyond, these results suggest that a majority of garment factories throughout the industry have not benefited from productivity interventions.

The number of supported factories often depends on the size and type of the service provider. Interventions that involve buyers or development partners typically reach a large number of factories, such as the BSR's HERproject, Gap Inc.'s P.A.C.E. programme or the ILO–International Finance Corporation's Better Work programme. These actors have their own staff or work with larger consultancies to serve factories in multiple countries.

Since 2007, the BSR's HERproject has reached more than 1,000,000 working women and 450,000 men.⁴² Gap Inc. has expanded P.A.C.E. across Asia, reaching more than 20,000 female garment workers in seven countries.⁴³ Currently, the Better Work programme is active in 1,700 factories employing more than 2.4 million workers across nine countries.⁴⁴

41 Better Work, n.d.a.

42 BSR, n.d.

43 ICRW 2016.

44 Better Work, n.d.b.

b. Tiers targeted

Almost two thirds of the productivity service providers included in this study work exclusively with factories located in tier 1. About one third of the study respondents indicated that they deliver interventions to tier-2 suppliers.

Tier-1 factories are typically larger in size and have more professionalized operations than those found at the lower tiers of the supply chain. They benefit from direct dealings with buyers or vendors and tend to have greater visibility on the international level. The service providers indicated that tier-1 factories are typically targeted because they are more interested in making use of available interventions and have more resources to allocate for this purpose. In addition, the service providers indicated that the direct relationship and high level of visibility between tier-1 factories and buyers contributes towards factories' participation in such interventions as a result of buyer pressure, which was often cited as a reason for why factories will agree to undertake and invest in productivity initiatives.

In contrast, tier-2 firms, which are often smaller in size, although this can vary substantially across countries, typically have lower margins than the tier-1 factories. The service providers suggested that the short-term focus on business survival makes it hard for tier-2 factories and those beyond tier 2 to invest in workforce development or to improve factory processes. It is also harder to attract the attention of these factories for productivity-related interventions because there is no direct relationship with a buyer that can be leveraged. As a result, tier-2 factories are participating in productivity-improvement programmes less often than tier-1 factories.

Service providers who target tier-2 factories reported that they often do so through projects funded by development partners or governments, which require them to select factories with a certain profile. In India, for example, only micro, small and medium-sized manufacturers are eligible under the Lean Manufacturing Competitiveness Scheme, for which a sizeable portion of the consulting costs are covered through grants from the Indian Government.⁴⁵

Another example of a programme targeting smaller firms is the ILO's global Sustaining Competitive and Responsible Enterprises (SCORE) programme that improves productivity and working conditions in small and medium-sized enterprises (SMEs) engaged in global supply chains.⁴⁶ The primary intervention is the SCORE training programme, which combines practical classroom training with in-factory consulting. SCORE looks to develop cooperative working relationships that produce shared benefits for workers and employers.

c. Resource-intensity

The study results indicate that productivity-related interventions provided to the industry vary in terms of resource-intensity, although more than two thirds of the service providers said that their interventions require significant time and financial investment. The consultants agreed that the high cost and resource-intensity of most interventions are limiting for many factories, including SMEs and factories beyond tier 1.

Contracting technical experts to deliver support in-factory and follow-up interventions on a regular basis often requires substantial financial investments in terms of daily fees and loss of workers' hours in the factory. In some cases of service delivery, including projects delivered by development partners, international experts were contracted and flown to the location reportedly due to the limited number of local productivity service providers with sufficient relevant knowledge and experience, such as in Cambodia.

⁴⁵ India, Ministry of Micro, Small and Medium Enterprises, n.d.

⁴⁶ ILO 2017b.

Indeed, the limited availability of local services in the industry sometimes leads to hiring foreign consultants and service providers, which is generally more expensive, even though it is often subsidized by donors, garment associations or buyers. Several approaches have been explored to address this, including training of trainers programmes, which is common in projects delivered by development partners. In such scenarios, a group of local personnel is trained by an international consultant to build local capacity that can serve a market over time. These trainees ultimately become trainers who sell and impart knowledge to factories. However, this study did not come across many successful interventions of this kind that sustained services once the financial support from the involved development partner ended. This seems to indicate that the design of the service was not fit for the particular market targeted.

In another attempt to keep interventions less resource-intensive and thus possible to scale up, BSR has relied on peer education to support factories. As part of its programme, BSR works with external partners or their own staff conduct peer-education training with selected workers. The trained peer educators then return to factories and share with other peers what they learned.

4.3.3 Sustainability

The study findings indicate that there is often a lack of sustainability of productivity interventions in the Asian garment industry.

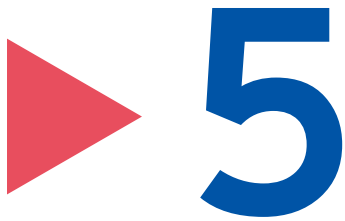
In some cases, training and support interventions are contingent upon financial assistance provided by buyers, governments and/or development partners. These interventions are often delivered through an international or local consultancy firm for a period of time and then stop when funds run out or the project ends. According to the study respondents, service providers usually are not able to continue supporting factories or a particular market afterwards due a lack of market demand. This leaves smaller, local service providers with an infrequent inflow of funds and an unsustainable business model.

The study respondents indicated that this is primarily caused by structural issues in the industry, such as factories lacking resources to spend on interventions as well as a lack of interest among factory managers to invest in it due to high turnover rates among workers or unwillingness to change the status quo. Typically, buyer pressure among tier-1 factories is the key factor for ensuring factories' participation in interventions, according to the study respondents.

International consulting firms such as BSR, Elevate and Kaizen Institute have been able to sustain services by primarily relying on a mixed-revenue model that works with buyers and development partners, as well as larger and more professionalized factories with the financial resources to purchase their services. By aligning their service offering with the values of buyers, BSR has been able to continue delivering the HERproject to factories for more than a decade.

Despite limited local demand, the study respondents emphasized the need to work with local partners and national staff when designing projects and interventions to build up their capacity because the availability of productivity-related service providers is often limited. For example, Kaizen Institute always hires and trains local staff and makes sure to have a mix of international and local staff in their offices. The ILO's SCORE programme operates with a similar model by training and certifying local consultants to deliver interventions. The United Kingdom's Foreign, Commonwealth and Development Office's Business Innovation Facility Project on Improving Worker Welfare and Productivity in Garment Factories in Myanmar, which ended in 2019, also utilized the same approach.⁴⁷ However, as long as these local service providers continue to offer interventions that are not suited for factories in the industry and that do not have the resources to purchase such services, it will not be possible for them to sustain interventions unless external funding is available.

47 FCDO 2020. The Foreign, Commonwealth and Development Office is the former Department for International Development.



Conclusions and recommendations

This study aimed to improve the understanding of the availability of productivity-related interventions to Asian garment factories and to document good practices, missing gaps and opportunities for addressing them. It also sought out the factors that limit the availability and suitability of productivity-related interventions in the industry.

A key finding is that although it has immense potential for positive impact, productivity seems to be an overlooked area within the garment industry. Despite the valiant effort that went into identifying organizations offering productivity-related interventions, this study found relatively few service providers offering productivity interventions in most garment-exporting developing countries. Indeed, both demand for and supply of such interventions appear to be limited. Although a focus on working conditions is a critical for improving the industry, addressing productivity gaps can also have an important role in improving conditions for workers as well as sustaining the competitiveness of the industry in the long run – particularly because production timelines have decreased and labour costs have increased in recent years.






In terms of factors limiting access to productivity-related interventions in the industry, lack of time and financial resources were reported as common constraints to participation for factories. Some productivity service providers reported that it was difficult to target the garment industry because there appeared to be no demand for their services. To explore this further, insights should be sought from factories directly, which was not within the scope of this study.


The study findings also highlight the differing roles of various stakeholders in making productivity-related interventions available to factories. Oftentimes, development partners and buyers have an important role in providing financial support and influencing factories in the upper tiers of the supply chain to partake of offered activities. Individual consultants and consultancy firms, together with EBMOs and training centres, have a significant role in delivering productivity interventions across the industry. Governments and EBMOs are also important for communicating the potential benefits of productivity improvements and promoting awareness of productivity-related interventions.

5.1 Summary of findings

The study findings indicate that the participating service providers follow the six criteria outlined in the conceptual framework to varying extent.

► **Table 5. Summary of study results**

Criteria	Findings	Results	Example interventions (programmes that meet the criteria)
1. Interventions should take an integrated approach to target productivity improvements by taking into account working conditions and environmental practices.	Most service providers said they acknowledge gender, the environment and working conditions in their interventions, although this study did not identify the extent to which this occurs. Most development partners and buyers tend to prioritize and support projects focused on working conditions over productivity.		<ul style="list-style-type: none"> ▶ Better Work ▶ GIZ: Labour and Social Standards in Pakistan's Textile Industry' Project ▶ Centre for Energy Environment and Productivity ▶ Gap Inc: P.A.C.E.
2. Interventions should be adjusted to the current capacity of garment factories and focused on management practices and skills.	The majority of service providers engaged in this study direct interventions towards improving factory processes and practices rather than investing in new technologies.		<ul style="list-style-type: none"> ▶ Kaizen Institute ▶ TBM Consulting Group ▶ Gherzi Consultant
3. Interventions should orient factories towards action.	Most interventions highlighted in this study were customized and tailored to factory needs, and a majority of interventions were grounded in practical action. These interventions were typically delivered in-factory to develop skills and improve processes that could directly be applied to factory operations.		<ul style="list-style-type: none"> ▶ Kaizen Institute ▶ Shahi Exports ▶ Business for Social Responsibility: HERproject ▶ Inditex, Nike and H&M
4. Interventions should be inclusive and ensure a wide reach, both horizontally and vertically.	In most cases, employees from various factory levels, as well as both women and men, were involved in the productivity trainings and factory-improvement processes delivered by the service providers in this study.		<ul style="list-style-type: none"> ▶ Impactt ▶ Better Work ▶ Bangladesh Knitwear Manufacturers and Exporters Association
5. Interventions should be scalable and go beyond tier 1 of the supply chain to maximize impact.	While some interventions considered in this study went beyond tier 1 to also involve tier-2 factories, most focused on tier 1. There appeared to be few targeted efforts to reach second-tier and other lower-tier suppliers, including SMEs.		<ul style="list-style-type: none"> ▶ Business for Social Responsibility's: HERproject ▶ Gap Inc: P.A.C.E. ▶ Better Work ▶ ILO: SCORE ▶ China Textile Information Center ▶ NEC Consultants

Criteria	Findings	Results	Example interventions (programmes that meet the criteria)
<p>6. Interventions should be designed to ensure the continuation of the intervention model and its sustainability in the long term.</p>	<p>The study findings highlight gaps in sustaining the interventions provided to factories. Some training and support services in the industry are contingent upon financial assistance provided by buyers or development partners, which often ends once a project is considered completed. In cases in which factories pay to avail of such interventions, they tend to sustain the work of the initiative. These factories tend to be large manufacturers who represent a small number of overall suppliers within the industry.</p>	<p></p>	<ul style="list-style-type: none"> ▶ Elevate ▶ Business for Social Responsibility: HERproject ▶ Kaizen Institute ▶ (United Kingdom) Foreign, Commonwealth and Development Office–Business Innovation Facility ▶ Cambodian Garment Training Institute ▶ Shahi Exports ▶ Crystal International Group

● Fulfilled
 ● Partly fulfilled
 ● Needs attention

5.2 Recommendations

Chapter 4 makes clear that opportunities for enhancing productivity holds great potential in many garment-exporting countries in Asia, particularly as the number of factories that have benefited from productivity interventions appears insignificant to the total number of factories operating in the region’s garment industry. Furthermore, productivity in the garment industry is a sometimes-overlooked topic despite its positive relationship with both working conditions and factory competitiveness.

Service providers who participated in this study suggested that both the supply of and demand for productivity interventions are limited. In terms of supply, the study did not find many local productivity service providers in most countries, aside from India. Whereas for demand, lack of time and financial resources were reported as common constraints to participation for factories that hesitated to make use of available interventions.

Therefore, industry stakeholders need to engage in efforts to enhance the reach of productivity interventions if the Asian garment industry is to remain competitive and for conditions to improve over time. The following recommendations could contribute to strengthening demand as well as supply.

1. Make clear the business case for investing in productivity interventions to increase demand.

The general focus on low-cost labour in the industry tends to overshadow other areas with possible profitability returns. Considering the low profit margins of factories and the changing competitive landscape in the garment industry, there needs to be a continued shift in mind-set among factories, from working primarily on keeping labour costs low to a more systematic view of improving factory operations.

Various stakeholders can make the business case and awareness of the potential returns for productivity improvements clearer to garment factories. This should be done in a systematic and collaborative manner at the national and local levels, driven by governments, EBMOs and unions, with the support of

other stakeholders. Activities such as information sessions delivered by industry associations, awareness-raising campaigns, seminars, webinars and fairs could be utilized to present factories with the business case.

Further efforts should be made to document the results of productivity-related interventions and to communicate this to a broad group of factories. Efforts to support existing productivity service providers in communicating the positive impact of their delivered interventions to factories can enable them to expand their customer base over time.

In Cambodia, the Ministry of Labour and Vocational Training has partnered with the Union of Youth Federations of Cambodia and the Garment Manufacturers Association in Cambodia to organize an annual national conference on productivity as well as a National Career and Productivity Fair.⁴⁸ The Government has also worked with the Asian Productivity Organization to implement a ten-year productivity master plan to ensure productivity remains a priority for the garment industry.⁴⁹

Similarly, the Bangladesh Knitwear Manufacturers and Exporters Association has worked to enhance productivity across the ready-made garment industry by creating a dedicated Productivity Improvement Cell to train consultants and offer trainings to member factories.⁵⁰

2. Address the structural barriers that limit the demand for productivity-related interventions.

Productivity-related interventions in the garment industry are relatively limited. Increasing the availability of such interventions to the garment industry will not be possible unless there is a demand for them. Therefore, efforts should be made to redress the root causes hindering factories from purchasing such services.

The lack of demand for productivity interventions appears to be mainly due to time and financial constraints of garment factories. Structural impediments, such as factories' low and decreasing profit margins and turnaround times in the industry, must be addressed, although that is a longer-term effort. Until these barriers shift, investment into productivity interventions for factories, especially among factories beyond tier 1, will likely remain limited. According to the service providers in this study, it is difficult, or in some cases impossible, for factories to think about or invest in long-term upgrading and improvements when they are consumed with surviving in the short term. Likely, the COVID-19 pandemic will exacerbate this situation further.

What is needed is continued efforts by governments, EBMOs, unions, international organizations, brands, multi-stakeholder initiatives, academics and NGOs to alter purchasing practices and rebalance power dynamics within the industry so that profit margins can better support investment into productivity interventions. International organizations have a key role in facilitating this type of social dialogue by convening tripartite policy and discussion forums. Although this topic has risen in importance in industry dialogue forums in recent years, progress remains limited. To facilitate solutions, all parties should engage or continue to engage in innovative pilot projects and strengthen policy frameworks.

48 Kimmarita 2019.

49 APO 2018.

50 BKMEA, n.d.

3. Increase the supply of productivity-related interventions by exploring new models of service delivery.

Productivity service providers that are interested in offering their services to a larger group of garment factories must attempt to make them more accessible to factories. This includes making interventions more financially viable for factories to purchase. Currently, most productivity-related interventions are delivered using a traditional and resource-intensive consultancy model contingent upon an expert, oftentimes an industrial engineer or similar, who works with a factory over an extended period of time. While this approach is successful in terms of ensuring productivity increases for participating factories, the method makes it difficult to improve productivity in the garment industry at scale.

Indeed, decreasing the resource-intensity of interventions would likely increase the market for such interventions as well as enhance the sustainability of interventions that would no longer need to primarily rely on support from international organizations or buyers to be sustained. For this reason, more innovation in terms of how to deliver support to garment factories is needed. When adjusting interventions, efforts should be made to ensure that interventions still have valuable impact by building on previous cost-efficient and impactful approaches. This could include leveraging more long-term group coaching models or possibly a peer-learning approach, such as what the BSR's HERproject employs. Individual consultants and consultancy firms should also consider how to combine training support with simultaneous independent implementation over an extended term, transferring some of the ownership of interventions to factories to manage improvement processes more autonomously. The ILO's new Factory Improvement Toolset, which offers a low-cost and practical option towards improving productivity, is a potential resource that could be used by consultancies or factories to assist in this process.⁵¹

Building up local capacity in garment-exporting countries is another way of decreasing the resource-intensity of available interventions. Even though there were some local consultants offering productivity-related services in most countries included in the study, their numbers were limited in each country, aside from India. In some cases, experts were flown in from other countries to deliver support, which significantly increased costs for the organization financing the intervention. Thus, to improve the sustainability of interventions as well as improve their reach beyond tier-1 factories, there needs to be continued effort to increase the availability of local service providers and decrease the financial cost.

Some organizations, such as the Kaizen Institute, aim to build local capacity. But this approach should be incorporated by other organizations that are delivering interventions to garment factories. International donors should direct their support to developing local expertise and continuing to utilize local consultants to deliver productivity interventions, as is done in the ILO's SCORE programme. Governments should continue to invest in building local capacity and could collaborate with regional service providers, such as the Asian Productivity Organization, to build up their capacity over time.

⁵¹ See https://learninghub.ilo.org/program/Factory_Improvement_Toolset_FIT.

4. Increase the allocation of financial resources to expand the availability of productivity interventions.

Considering the important role of development partners and buyers in making productivity-related interventions accessible to garment factories, this study concludes that further resources should be allocated towards productivity interventions to stimulate both supply and demand for such interventions. This would ensure that interventions can be made accessible to a larger group of garment factories in the short term. As suggested in the previous recommendation, this needs to be combined with an effort to identify new innovative ways to deliver productivity interventions to make them accessible to a larger group of garment factories.

Governments, international organizations, buyers and industry organizations should consider using financial resources to subsidize or offer financial incentives to factories to make interventions more accessible in the short term. This could increase the supply of productivity interventions in the local market because it enables productivity service providers to establish themselves and build their reputation and the demand. Governments are well positioned to do this by developing and subsidizing national training programmes, distributing grants and ensuring that financial support and resources for such interventions are reflected in national development and policy plans.

Creative approaches to the payment model should also be considered by all stakeholders, but particularly individual consultants and consultancy firms. For instance, consultancy firms could consider a mixed-costing method based on a fixed component and a variable success fee based on a factory's level of productivity improvement. They could also consider longer-term payment schedules or developing financing options through industry associations, governments or banks. Consultancies could also demonstrate the value of their services by providing complimentary assessments to individual factories to estimate the cost-savings potential of enhanced productivity efforts.



► References

Anner, Mark. 2019. *Sourcing Dynamics, Workers' Rights, and Inequality in Garment Global Supply Chains in India*. State College, PA: Centre for Global Workers' Rights, Pennsylvania State University. Available at: https://ler.la.psu.edu/gwr/documents/copy_of_CGWRGarmentSourcingandWorkersRightsinIndiaNov.152019.pdf.

———. 2018. *Binding Power: The Sourcing Squeeze, Workers' Rights, and Building Safety in Bangladesh Since Rana Plaza*. State College, PA: Centre for Global Workers' Rights: Penn State University. Available at: <http://ler.la.psu.edu/gwr/documents/CGWR2017ResearchReportBindingPower.pdf>.

Asian Productivity Organization (APO). n.d. "Types of Projects", available at: <https://www.apo-tokyo.org/wedo/projects/>.

———. 2018. *APO Hands Over Cambodia National Productivity Master Plan Document*. Available at: <https://www.apo-tokyo.org/news/aponews/apo-releases-cambodia-national-productivity-master-plan-document/>.

Berg, Achim, Saskia Hedrich, Tim Lange, Karl-Hendrik Magnus, and Ben Mathews. 2017. *The Apparel Sourcing Caravan's Next Stop: Digitization, McKinsey Apparel CPO Survey 2017*. McKinsey & Company. Available at: <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/digitization%20the%20next%20stop%20for%20the%20apparel%20sourcing%20caravan/the-next-stop-for-the-apparel-sourcing-caravan-digitization.ashx>.

Berg, Achim, Lara Haug, Saskia Hedrich, and Karl-Hendrik Magnus. 2020a. *Time for Change: How to Use the Crisis to Make Fashion Sourcing More Agile and Sustainable*. [online] McKinsey & Company. Available at: <https://www.mckinsey.com/industries/retail/our-insights/time-for-change-how-to-use-the-crisis-to-make-fashionsourcing-more-agile-and-sustainable>.

Better Work. n.d.a. "Improving the Garment Industry Through Supervisors", available at: <https://sst.betterwork.org/>.

———. n.d.b. "The Programme", available at: <https://betterwork.org/about-us/the-programme/>.

———. 2020. *Progress and Potential: A Focus on Firm Performance*. ILO. Available at: <https://betterwork.org/wp-content/uploads/2020/01/Firm-performance-Brief-Finalweb.pdf>.

Bangladesh Garment Manufacturers and Exporters Association (BGMEA). 2020. "Trade Information", available at: <http://www.bgmea.com.bd/home/pages/TradeInformation>.

Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA). n.d. "The Campaign: Productivity is the Key of Sustainability", available at: <https://bkmea.com/department/pic/>.

Bloom, Nicholas, Benn Eifert, Aprajit Mahajan, David McKenzie, and John Roberts. 2011. "Does Management Matter? Evidence from India." *Quarterly Journal of Economics* 128 (1): 1–51. Available at: <https://are.berkeley.edu/~aprajit/DMM.pdf>.

Business for Social Responsibility (BSR). n.d. "IMPACT: Numbers", available at: <https://herproject.org/impact>.

Business Innovation Facility (BIF). n.d. *How to Maximize the Benefits of Garment Factory Training for Your Business, Your Workers and the Industry*. Available at: https://www.bifprogramme.org/sites/default/files/attachments/bif_garment_business_case_-_factory_paper_v5.pdf.

Chua, Jasmin Malik. 2020. "Cambodia Raises Garment Worker Minimum Wage", *Sourcing Journal*, 11 Sep. Available at: <https://sourcingjournal.com/topics/labor/cambodia-raises-garment-worker-minimum-wage-september-2020-coronavirus-231031/>.

Deutsche Investitions und Entwicklungsgesellschaft (DEG). 2016. *Chapter 4: Company Case Studies*. Available at: https://www.deginvest.de/DEG-Documents-in-English/About-DEG/What-is-our-impact/Case_Study_JMS_Holding_Ltd_Web.pdf.

Donaldson, Tara. 2018. "Myanmar Approves 33% Wage Hike for Garment Workers", *Sourcing Journal*, 9 Jan. Available at: <https://sourcingjournal.com/topics/labor/myanmar-minimum-wage-increase-76963/>.

Elven, Marjorie. 2018. "Bangladesh Raises Minimum Wage for Garment Workers", *Fashion United*, 14 Sep. Available at: [https://fashionunited.uk/news/business/bangladesh-raises-minimum-wage-for-garment-workers/2018091438912#:~:text=The%20minimum%20wage%20for%20Bangladeshi,taka%20\(63%20US%20dollars\)](https://fashionunited.uk/news/business/bangladesh-raises-minimum-wage-for-garment-workers/2018091438912#:~:text=The%20minimum%20wage%20for%20Bangladeshi,taka%20(63%20US%20dollars)).

Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ). n.d. *Implementation of Social Standards in the Textile and Garment Industry in Punjab*. Available at: <https://www.giz.de/en/worldwide/32073.html>.

Hearle, C. 2016. *Skills, Employment and Productivity in the Garments and Construction Sectors in Bangladesh and Elsewhere*. London: EPS PEAKS, Department for International Development. Available at: https://assets.publishing.service.gov.uk/media/5977616f40f0b649a7000022/Skills_productivity_and_employment.pdf.

Hohenegger, Klaus., and Doug Miller. 2016. *Labour Minute Costing: A Tool for Establishing Living Wage Floors in Garment Factories*. Fair Wear Foundation. Available at: <https://api.fairwear.org/wp-content/uploads/2017/01/FWF-LabourMinuteCosting.pdf>.

Hurst, Rosey. 2013. *Nicer work? IMPACTT's Benefits for Business and Workers Programme 2011–2013*. London: IMPACTT. Available at: <https://impacttlimited.com/wp-content/uploads/2017/01/Report170x240v4-1.pdf>.

Huynh, Phu. 2015. "Employment, Wages and Working Conditions in Asia's Garment Sector: Finding New Drivers of Competitiveness", ILO Asia-Pacific Working Papers Series. Available at: https://www.ilo.org/asia/publications/WCMS_426563/lang--en/index.htm.

India, Ministry of Micro, Small and Medium Enterprises. n.d. *Lean Manufacturing Competitiveness Scheme (LMCS) for Micro Small and Medium Enterprises (MSMEs)*. Available at: <http://www.dcmsme.gov.in/schemes/lean-manufact.htm>.

International Center for Research on Women (ICRW). 2016. *P.A.C.E. Gap Inc*. Available at: https://www.icrw.org/wp-content/uploads/2016/10/PACE_Report_PRINT_singles_lo.pdf.

ILO. 2016. *Decent Work in Global Supply Chains: Report IV for International Labour Conference, 105th Session*. Available at: https://www.ilo.org/ilc/ILCSessions/previous-sessions/105/reports/reports-to-the-conference/WCMS_468097/lang--en/index.htm.

———. 2017a. *Purchasing Practices and Working Conditions in Global Supply Chains: Global Survey Results*. INWORK.

———. 2017b. "SCORE Programme", available at: [https://www.ilo.org/empent/Projects/WCMS_607488/lang--en/index.htm#:~:text=Sustaining%20Competitive%20and%20Responsible%20Enterprises,and%20medium%20enterprises%20\(SMEs\)](https://www.ilo.org/empent/Projects/WCMS_607488/lang--en/index.htm#:~:text=Sustaining%20Competitive%20and%20Responsible%20Enterprises,and%20medium%20enterprises%20(SMEs)).

———. 2019a. "Securing the Competitiveness of Asia's Garment Sector: A Framework for Enhancing Factory-Level Productivity", Asia-Pacific Working Paper Series. Available at: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_732907.pdf.

———. 2019b. *Cambodian Garment and Footwear Sector Bulletin: "The Footwear Sector – New Opportunities for Cambodia?"*. Issue 9, July. Available at: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_714915.pdf.

———. 2019c. "The Future of Work in Textiles, Clothing, Leather and Footwear", Working Paper No. 326. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_669355.pdf.

———. 2020a. *What next for Asian garment production after COVID-19? The perspectives of industry stakeholders*. Available at: https://www.ilo.org/asia/publications/WCMS_755630/lang--en/index.htm.

———. 2020b. *The Supply Chain Ripple Effect: How COVID-19 is Affecting Garment Workers and Factories in Asia and the Pacific*. Available at: https://www.ilo.org/asia/publications/issue-briefs/WCMS_758626/lang--en/index.htm.

Jayawardana, Ananda, and O'Donnell, Michael. 2009. "Devolution, Job Enrichment and Workplace Performance in Sri Lanka's Garment Industry", *Economic and Labour Relations Review* 19 (2): 107–122. Available at: https://www.researchgate.net/publication/258135033_Devolution_Job_Enrichment_and_Workplace_Performance_in_Sri_Lanka's_Garment_Industry.

Kimmarita, Long. 2019. "Firms to Offer 20,000 Vacancies at Career and Productivity Fair", *Phnom Penh Post*. Available at: <https://www.phnompenhpost.com/national/firms-offer-20000-vacancies-career-and-productivity-fair>.

Macchiavello, Rocco, Atonu Rabbani, and Christopher Woodruff. 2015. "The Market for Training Services: A Demand Experiment with Bangladeshi Garment Factories", *American Economic Review* 105 (5): 300–304. Available at: http://eprints.lse.ac.uk/68208/1/Macchiavello_The%20market%20for%20training%20services.pdf.

Merk, Jeroen. 2014. "The Rise of Tier 1 Firms in the Global Garment Industry: Challenges for Labour Rights Advocates", *Oxford Development Studies* 42 (2): 277–295. Available at: https://www.researchgate.net/profile/Jeroen_Merk2/publication/262577829_The_Rise_of_Tier_1_Firms_in_the_Global_Garment_Industry_Challenges_for_Labour_Rights_Advocates/links/5715365a08ae0f1a39b1a12d/The-Rise-of-Tier-1-Firms-in-the-Global-Garment-Industry-Challenges-for-Labour-Rights-Advocates.pdf.

Naeem, Farria, and Christopher Woodruff. 2015. "Managerial Capital and Productivity: Evidence From a Training Programme in the Bangladesh Garment Sector", International Growth Centre Policy Brief. London: International Growth Centre. Available at: <https://www.theigc.org/wp-content/uploads/2015/03/Macchiavello-et-al-2014-Policy-Brief.pdf>.

Posthuma, Anne. 2010. "Beyond 'Regulatory Enclaves': Challenges and Opportunities to Promote Decent Work in Global Production Networks", in *Labour in Global Production Networks in India*, edited by A. Posthuma and D. Nathan. New Delhi: Oxford University Press, 57–80. Available at: <https://www.ilo.org/legacy/english/protection/travail/pdf/rdwpaper43c.pdf>.

Rourke, Emily L. 2014. "Is There a Business Case Against Verbal Abuse? Incentive Structure, Verbal Abuse, Productivity and Profits in Garment Factories," ILO Better Work Discussion Paper Series No. Available at: <https://betterwork.org/global/wp-content/uploads/2014/09/DP-15-web.pdf>.

Saxena, Sanchita Banerjee and Véronique Salze-Lozach. 2010. *Competitiveness in the Garment and Textiles Industry: Creating a Supportive Environment – A Case Study of Bangladesh*. San Francisco: The Asia Foundation. Available at: <https://asiafoundation.org/resources/pdfs/1OccasionalPaperNo.1BGGARMENTwithCover.pdf>.

TBM Consulting Group. n.d. *Lean Culture Increases Profitability*. Available at: <https://www.tbmcg.com/work/gokaldas-builds-lean-culture-and-increases-profitability/>.

Tufts University. 2016. *The Impact of Better Work: A Joint Program of the International Labour Organization and the International Finance Corporation*. Boston: Tufts University Labour Lab. Available at: <https://sites.tufts.edu/laborlab/projects/bw-impact-evaluation/#publications>.

United Kingdom, Foreign, Commonwealth and Development Office (FCDO). 2020. *Project Completion Review 114178*. Available at: <https://devtracker.fcdo.gov.uk/projects/GB-1-114178/documents>.

United Nations Conference on Trade and Development (UNCTAD). 2020. "UNCTAD Stat Database", available at: <https://unctad.org/en/Pages/Statistics.aspx/>.

► Appendix I

Organizations initially included in the mapping study

Name	Stakeholder type
Abercrombie & Fitch	Brand
Acena	Brand
Adidas	Brand
American Eagle	Brand
Apparel Export Promotion Council (AEPC) (India)	EBMO
Apparel Training & Design Center (ATDC)	Training Centre
ASEAN Federation of Textile industry (AFTEX)	EBMO
Asia Management Consultants	Consultancy
Asics	Brand
Asos	Brand
Association of the Lao Garment Industry	EBMO
Bangladesh Employers' Federation (BEF)	EBMO
Bangladesh Garment Management Institute	Training Centre
Bangladesh Garment Manufacturers and Exporters Association (BGMEA)	EBMO
Bangladesh Knitwear Manufacturers & Exporters Association (BKMEA)	EBMO
Bangladesh Ministry of Commerce	Government
Bangladesh Ministry of Industries	Government
Bangladesh Ministry of Labour and Employment	Government
Bangladesh Ministry of Textiles and Jute	Government
Bangladesh Revolutionary Garments Workers Federation (BRGWF)	Workers' organization
Better Factories Cambodia	Development/ international organization
Better Work	Development/ international organization

Name	Stakeholder type
Business for Social Responsibility (BSR)	Consultancy
Cambodia Garment Training Institute (CGTI)	Training Centre
Cambodia Ministry of Commerce	Government
Cambodia Ministry of Industry & Handicraft	Government
Cambodia Ministry of Labor and Vocational Training	Government
Cambodian Federation of Employers and Business Associations (CAMFEBA)	EBMO
Chamber of Commerce for the Import and Export of Textile and Apparel (CCCT) (China)	EBMO
Changzhou Textile Garment Institute (CTGI)	Training Centre
China Enterprise Confederation (CEC)	EBMO
China Ministry of Commerce	Government
China Ministry of Education	Government
China Ministry of Human Resources and Social Security	Government
China Ministry of Industry and Information Technology	Government
China National Garment Association (CNGA)	EBMO
China National Textile and Apparel Council (CNTAC)	EBMO
Clothing Industry Training Authority (CITA)	Training centre
Clothing Manufacturers Association of India (CMAI)	EBMO
Coalition of Cambodia Apparel Worker Democratic Union (CCAWDU)	Workers' organization
Confederation of Indian Industry (CII)	EBMO
Confederation of Trade Unions of Myanmar	Workers' organization
Cosmos Pakistan	Consultancy
Crystal International Group	Manufacturer
CSR Asia	Consultancy
Dakota Garment Group	Manufacturer
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH – Improvement of labour and social standards in Pakistan's textile industry	Development/ international organization

Name	Stakeholder type
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH – Promotion of Social and Environmental Standards in the Industry (PSES) Project	Development/ international organization
Dicks Sporting Goods	Brand
Dishang	Manufacturer
Disney	Brand
Elevate	Consultancy
Employers’ Confederation of Thailand (ECOT)	EBMO
Employers’ Federation of Pakistan (EFP)	EBMO
Esquel	Manufacturer
Ethical Trading Initiatives (joint)	NGO
European Union – SWITCH-Asia – SMEs for Environmental Accountability, Responsibility and Transparency (SMART Myanmar)	Development/ international organization
Fast Retailing	Brand
Free Trade Union of Workers of the Kingdom of Cambodia (FTUWKC)	Workers’ organization
Gap Inc.	Brand
Garment Exporters & Manufacturers Association (GEMA) (India)	EBMO
Garment Manufacture Association in Cambodia (GMAC)	EBMO
Global Brands Group	Brand
Hennes & Mauritz (H&M)	Brand
Hansei	Manufacturer
Hansoll	Manufacturer
Hugo Boss	Brand
IDH	NGO
India Ministry of Commerce and Industry	Government
India Ministry of Labour and Employment	Government
India Ministry of Skill Development and Entrepreneurship	Government
India Ministry of Textiles	Government
India National Textile Workers Federation (INTWF)	Workers’ organization

Name	Stakeholder type
Inditex	Brand
Indonesia Garment Training Center	Training Centre
Indonesia Ministry of Industry	Government
Indonesia Ministry of Manpower	Government
Indonesia Ministry of Trade	Government
Indonesian Textile Association (API)	EBMO
International Finance Corporation (IFC) – Vietnam Improvement Programme (VIP)	Development/ international organization
International Finance Corporation (IFC) – Work Progression and Productivity Toolkit	Development/ international organization
International Labour Organization (ILO) – Decent Work in Garment Supply Chains Asia	Development/ international organization
International Labour Organization (ILO) – Developing the capacity of employer organizations in Myanmar to promote Decent Work principles and sustainable enterprises	Development/ international organization
International Labour Organization (ILO) – Improving Labour Relations for Decent Work and Sustainable Development in the Myanmar Garment Industry (ILO-GIP)	Development/ international organization
International Labour Organization (ILO) – Improving the Garment Sector in Lao PDR	Development/ international organization
International Labour Organization (ILO) – Increasing Productivity and Competitiveness through Labour Law Compliance	Development/ international organization
International Labour Organization (ILO) – RMG Center of Excellence (COE) Project	Development/ international organization
International Labour Organization (ILO) – Sustaining competitive and responsible enterprises (SCORE)	Development/ international organization
J.Crew	Brand
John Lewis	Brand
Joint Apparel Association Forum Sri Lanka (JAAFSL)	EBMO
Kmart	Brand
Kaizen Institute	Consultancy
Kate Spade	Brand

Name	Stakeholder type
Kering	Brand
L Brands	Brand
Laos National Chamber of Commerce and Industry (LNCCI)	EBMO
Laos PDR Ministry of Education and Sports	Government
Laos PDR Ministry of Industry and Commerce	Government
Laos PDR Ministry of Labor and Social Welfare	Government
Levi Strauss	Brand
Li & Fung	Brand
Li & Fung	Consultancy
Lululemon	Brand
LVMH	Brand
M&S	Brand
Malaysia Ministry of Energy, Green Technology & Water	Government
Malaysia Ministry of Human Resources	Government
Malaysia Ministry of International Trade and Industry	Government
Malaysia Textile and Apparel Center (MATAC)	Training centre
Malaysian Employers Federation (MEF)	EBMO
Malaysian Garment Manufacturers Association (MGMA)	EBMO
Methods Apparel	Consultancy
Michael Kors	Brand
Muji	Brand
Myanmar Garment Human Resources Development Center (MGHRDC)	Training centre
Myanmar Garment Manufacturers Association (MGMA)	EBMO
Myanmar Ministry of Commerce	Government
Myanmar Ministry of Industry	Government
Myanmar Ministry of Labour, Employment and Social Security	Government
Myanmar Productivity Centre	Training centre

Name	Stakeholder type
National Garment Workers Federation (NGWF) (Bangladesh)	Workers' organization
National Trade Union Federation Pakistan (NTUF)	Workers' organization
NEC Consultants Pvt. Ltd	Consultancy
New Balance	Brand
Next	Brand
Nike	Brand
Nordstrom	Brand
Pakistan Ministry of Commerce and Textile Industry	Government
Pakistan Ministry of Federal Education and Professional Training	Government
Pakistan Ministry of Industries and Production	Government
Pakistan Readymade Garment Technical Training Institute (PRGTTI)	Training centre
Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA)	EBMO
Pandora	Brand
Patagonia	Brand
Pentland	Brand
Primark	Brand
PT Pan Brothers	Manufacturer
Puma	Brand
Punjab Skills Development Fund – Skills for Garment Scheme	Development/ international organization
PVH	Brand
Ralph Lauren	Brand
REI Coop	Brand
Richemont	Brand
Ross Stores	Brand
SAE	Manufacturer
SGS Consulting	Consultancy
Share	Consultancy

Name	Stakeholder type
Sri Lanka Apparel Exporters Association	EBMO
Sri Lanka Institute of Textile & Apparel (SLITA)	Training centre
Sri Lanka Ministry of Education	Government
Sri Lanka Ministry of Industry and Commerce	Government
Sri Lanka Ministry of Labour and Trade Union Relations	Government
Sri Lanka Ministry of Skills Development and Vocational Training	Government
Stand Consulting	Consultancy
Strengthening the Textiles and Clothing Sectors (GTEX)	Development/ international organization
Sudokkho	Development/ international organization
SuPPPort	Consultancy
Sustainable Apparel Coalition	NGO
Talbots	Brand
Target	Brand
Textile Garment and Leather Workers' Federation of Thailand (TWFT)	Workers' organization
Thai Garment Manufacturers Association	EBMO
Thailand Ministry of Commerce	Government
Thailand Ministry of Industry	Government
Thailand Ministry of Labour	Government
Thailand Office of Small and Medium Enterprises Promotion (OSMEP)	EBMO
The Children's Place	Brand
The Council of Indian Employers	EBMO
The Employers' Association of Indonesia (APINDO)	EBMO
The Employers' Federation of Ceylon (EFC) (Sri Lanka)	EBMO
Threadsol	Consultancy
Timeline	Consultancy
TJX Companies	Brand

Name	Stakeholder type
UK Department for International Development (DFID) – Improving worker welfare and productivity in garment factories	Development/ international organization
Under Armour	Brand
Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI)	EBMO
United Nations Development Programme (UNDP) – Gender promotion in the garment and clothing industry through skill development (GENPROM)	Development/ international organization
United Nations Development Programme (UNDP) – Promoting employment and productivity in garment industry (PEPGI)	Development/ international organization
VF Corporation	Brand
Vietnam Chamber of Commerce and Industry (VCCI)	EBMO
Vietnam Ministry of Industry and Trade	Government
Vietnam Ministry of Labour, Invalids and Social Affairs	Government
Vietnam National Union of Textile and Garment Workers	Workers' organization
Vietnam Textile and Apparel Association (Vitas)	EBMO
Walmart	Brand
Werner International	Consultancy
Z Labels	Brand

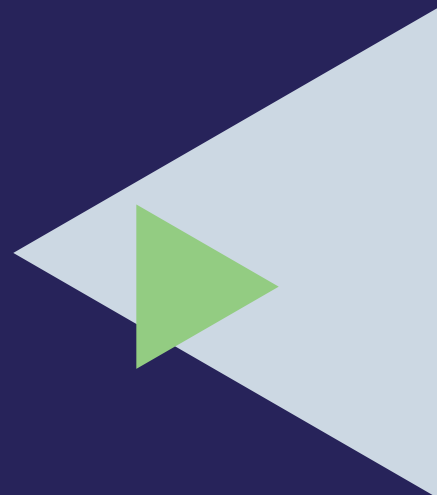
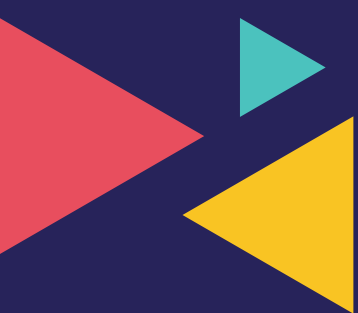
► Appendix II

Organizations who participated in the study

Name	Stakeholder type
Asia Management Consultants (AMC)	Consultancy
Asian Productivity Organization (APO)	Development/ international organization
Asia Society for Social Improvement and Sustainable Transformation (ASSIST)	NGO/multi-stakeholder initiative/initiative
AYT Business Solutions	Consultancy
Bangladesh Employer's Federation (BEF)	EBMO

Name	Stakeholder type
Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA)	EBMO
Business for Social Responsibility (BSR)	NGO/multi-stakeholder initiative/initiative
Cambodia Garment Training Institute (CGTI)	EBMO
Centre for Energy Environment and Productivity (CEEP)	Consultancy
China Textile Information Center (CTIC)	EBMO
Crystal International Group Ltd.	Manufacturer
Danida Market Development Partnerships – MYPOD	Development/ international organization
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH – Improvement of labour and social standards in Pakistan's textile industry	Development/ international organization
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH – Promotion of Social and Environmental Standards in the Industry (PSES) Project	Development/ international organization
Elevate	Consultancy
European Union – SWITCH-Asia – SMEs for Environmental Accountability, Responsibility and Transparency (SMART Myanmar)	Development/ international organization
Guangzhou Timeline Consultancy Services Ltd.	Consultancy
Hennes & Mauritz (H&M)	Buyer
Honghua Xie	Consultancy
IDH, the Sustainable Trade Initiative, Pakistan	NGO/multi-stakeholder initiative/initiative
International Labour Organization (ILO) – Improving Labour Relations for Decent Work and Sustainable Development in the Myanmar Garment Industry (GIP)	Development/ international organization
Inditex	Buyer
International Labour Organization (ILO) –International Labour and Environmental Standards Application in Pakistan's SMEs (ILES)	Development/ international organization
International Labour Organization (ILO) – Sustaining competitive and responsible enterprises (SCORE)	Development/ international organization
International Labour Organization and International Finance Corporation – Better Work	Development/ international organization
JMJ Lean Consulting Group and LBE Consulting Group	Consultancy

Name	Stakeholder type
Kaizen Institute	Consultancy
Kim Dang Consulting	Consultancy
Leverage Limited	Consultancy
Malaysia Employers Federation (MEF)	EBMO
Methods Apparel India Pvt. Ltd.	Consultancy
MindWorks Bangladesh	Consultancy
Modern Engineering	Consultancy
NEC Consultants	Consultancy
Panacea Private Consulting (PPC)	Consultancy
Quantity Improvement Solutions	Consultancy
Rajesh Bheda Consulting Pvt. Ltd.	Consultancy
Seven Steps Business Transformation Systems	Consultancy
Shahi Exports	Manufacturer
Siri Exergy and Carbon Advisory Services (PVT) Limited	Consultancy
STENUM Asia Sustainable Development Society	NGO/multi-stakeholder initiative/initiative
Target	Buyer
The Coimbatore Productivity Council	NGO/multi-stakeholder initiative/initiative
TÜV Thuringen (Shanghai) Co. Ltd.	Consultancy
United Kingdom Foreign, Commonwealth and Development Office (FCDO), formerly Department for International Development (DFID) – Business Innovation Facility (BIF)	Development/ international organization
URs Productivity	Consultancy
Wazir Advisors Private Limited	Consultancy
Werner International	Consultancy



International Labour Organization (ILO)

Route des Morillons 4
CH-1211 Geneva 22
Switzerland

www.ilo.org