



International  
Labour  
Organization

# ▶ Factory Improvement Toolset case studies

Bangladesh



Copyright © International Labour Organization 2023

First published 2023

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](mailto: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](http://www.ifrro.org) to find the reproduction rights organization in your country.

---

ISBN: 9789220384657 (print), 9789220384664 (web PDF)

---

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](http://www.ilo.org/publns).

---

All photos: © ILO

Printed in Thailand

# Contents

---

▶ <b>Acknowledgements</b>	<b>ii</b>
▶ <b>Background</b>	<b>1</b>
Decent Work in Garment Supply Chains Asia	1
Factory Improvement Toolset (FIT) methodology	1
▶ <b>Results</b>	<b>2</b>
Productivity improvements	2
System improvements	4
▶ <b>FIT as a toolset</b>	<b>5</b>
1. Summary	5
2. Methodology	6
3. How to use FIT	6
4. Benefits of FIT	6
5. Challenges and tips for success	7
6. The future of FIT	7
▶ <b>Different FIT approaches</b>	<b>8</b>
1. FIT in-factory model	8
2. Brand-customized model	10
3. Blended model	12
▶ <b>Bangladesh factory A</b>	<b>13</b>
▶ <b>Bangladesh factory B</b>	<b>15</b>
▶ <b>Bangladesh factory C</b>	<b>17</b>
▶ <b>Bangladesh factory D</b>	<b>19</b>

# Acknowledgements

---

These case studies have been for the ILO's Decent Work in Garment Supply Chains Asia project with the financial support of the Swedish International Development Cooperation Agency (Sida).

The case studies were prepared by Rajesh Bheda Consulting under the supervision of Charles Bodwell, Job Creation and Enterprise Development Specialist of the ILO's Regional Office for Asia and the Pacific

We would like to acknowledge the support of the Bangladesh Employers Association (BEF) the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), the Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA), the Leathergoods And Footwear Manufacturers & Exporters Association of Bangladesh (LFMEAB) the Better Work Bangladesh Programme and the colleagues from ILO Country Office , which supported the use of the Factory Improvement Toolset (FIT) implementations in Bangladesh.

**The Factory Improvement Toolset of the International Labour Organization (ILO) was developed and provided by the ILO's Enterprises Department.**

**Authors: Rajesh Bheda Consulting, Charles Bodwell.**

# Background

## Decent Work in Garment Supply Chains Asia

The [Decent Work in Garment Supply Chains Asia](#) project was funded by the Government of Sweden and provided concrete follow-up to the resolution adopted in 2016 by the International Labour Conference concerning decent work in global supply chains. The project aimed to contribute to improved working conditions and rights of women and men workers as well as improved productivity and environmental sustainability of the garment sector in Asia. To achieve this, the project delivered interventions in two complementary areas of work: first, by strengthening knowledge of research findings, good practices and tools in four main and inter-connected problem areas:

1. Advancement of gender equality
2. Enhanced productivity and competitiveness
3. Reduced environmental impact

Second, by strengthening the coordination among the many stakeholders already actively working to ensure decent work in the garment industry in Asia. The project has built upon ongoing work by the ILO and other development partners to further compile, analyze and disseminate best practices and coordinate knowledge sharing. This resulted in more impactful, sustainable, and scalable solutions that improved conditions for workers and enhanced the sustainability of the garment industry. This project is timely as there is a significant body of knowledge and evidence as well as numerous approaches and initiatives across the

region to learn from, which were considered for adaptation and scaling. At the same time, there are persistent and stubborn gaps that continue to hamper the full achievement of decent work across the sector. Through an inclusive approach, the project strategy sought to coordinate efforts of governments, national institutions, social partners and other key stakeholders working toward the common goal of decent work and more sustainable garment sectors.

As part of Outcome #3 of the project, it focused on building the capacity of EB MOS, workers' organizations and other garment industry actors to enhance the productivity and competitiveness of targeted firms, as the ILO piloted a new suite of factory tools called the Factory Improvement Toolset (FIT).

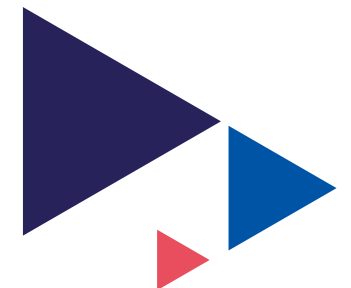
## Factory Improvement Toolset (FIT) methodology

FIT is a self-facilitated, activity-based learning programme designed to support garment manufacturers' efforts to improve productivity, competitiveness and working conditions by upgrading production systems and factory practices. The toolset can be used strategically by service providers of all capacity levels in a manner that meets the varying needs of garment producing enterprises. The toolset was designed to be flexible in terms of the delivery model. For optimal results, the ILO encouraged factories to bring workers and management together in an inclusive factory improvement process.

FIT was piloted in close partnership with industry stakeholders, including garment sector associations. The ILO provided support in the form of technical assistance to partners in order to ensure their capacity to coordinate, facilitate and monitor improvement sessions. Additionally, the ILO supported promotional activities in the sector to raise awareness and interest among factories.

The FIT approach was predicated on the following principles:

- **Cost-efficient and easy to implement:** FIT removed the need (and cost) for expensive, external experts. The facilitators promoted peer-learning and were not required to have subject-matter expertise.
- **Participant-driven:** The programme revolved around groups of 5-7 people working together to complete activities and engage in discussion.
- **Flexible and customizable:** Modules can be used comprehensively or as stand-alone tools to address specific challenges.
- **Result-oriented:** At the end of the module, participants were able to articulate how the knowledge gained from the programme could be developed into an action plan to resolve the identified issues.



# Results



Throughout 2021, the [Decent Work in Garment Supply Chains Asia](#) project led successful FIT interventions in Bangladesh, Pakistan and Cambodia. Qualitative and quantitative data was collection through Qualtrics surveys, interviews and reports submitted by the service providers who supported the in-factory interventions. Overall, the implementation was successful and positive results were demonstrated across the various enterprises in each country. Some factories have significantly improved their performance, while others have initiated improvement activities and established missing indicators to measure future progress. With the completion of implementation, all factories in Bangladesh have also rolled out the FIT tools by implementing the modules on their own without any external support as seen during the backstopping visits.

This demonstrated the effectiveness and sustainability of the FIT modules All participants were actively engaged and shared enthusiastic feedback regarding the methodology.

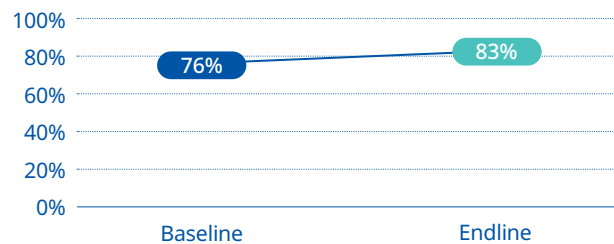
The results displayed here are based on the 27 enterprises engaged in the three pilot countries. Module-specific KPIs were determined based on baseline data and captured prior to the implementation. Endline data was captured one to three months post-intervention. Data has been grouped under the different topics and results were averaged among the factories that utilised the same modules. These results were shared for the purpose of demonstrating the impact of FIT on enterprise productivity, employee soft skills and the overall working environment.

## Productivity improvements

### Sewing room

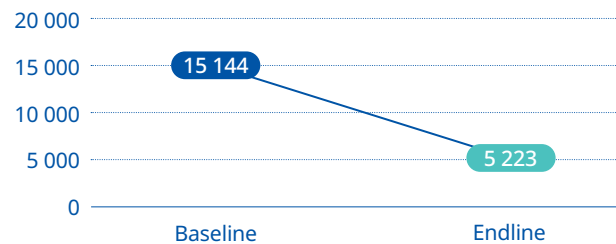


#### ► Line target achievement



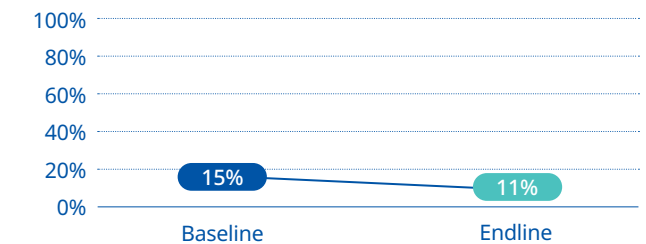
**Line target achievement:** Percentage of daily production target that was achieved (actually sewn in terms of good production). It can be calculated separately for each line, or for all lines together (closer to 100 per cent).

#### ► WIP level



**Work in progress (WIP) level:** Amount of pieces not yet completed between two work stations. It is calculated separately for each line, or for all lines together (very low and very high WIP are signs that lines are not well balanced).

#### ► DHU rate



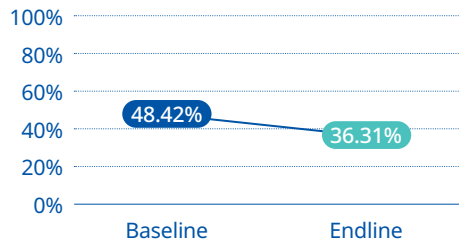
**Sewing room defect rate (defect per hundred units - DHU):** Average number of defects per 100 inspected pieces (lower DHU indicates higher quality, can be calculated separately for each line, or for all lines together).

## Productivity improvements (cont.)

### Cutting room



#### ► Re-cuts



**Number of re-cuts:** Proportion of fabric used for re-cuts compared to the total amount of fabric used (corresponds to waste).

#### ► Utilisation rates

##### Fabric utilisation



##### Marker utilisation



■ Baseline ■ Endline

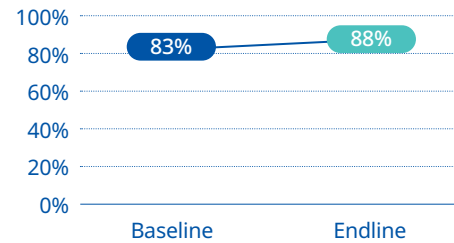
**Fabric utilisation rate:** Proportion of total fabric used for garments calculated for each cut (each marker).

**Marker utilisation rate:** Proportion of the marker area that is actually used for garments, calculated for each cut (each marker).

### Storeroom

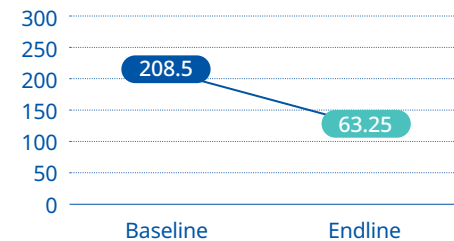


#### ► Space utilisation



**Space utilisation:** Proportion of storeroom space (floor & shelf surface) occupied by materials and other items (carts, machines, etc.).

#### ► Material retrieval time

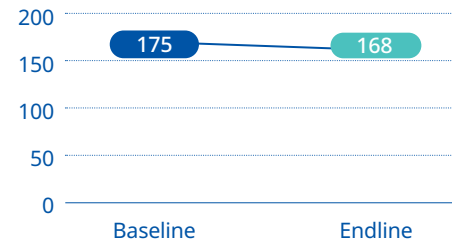


**Material retrieval time:** Average time (minutes) for a storeroom worker to prepare materials for production.

### Sample room

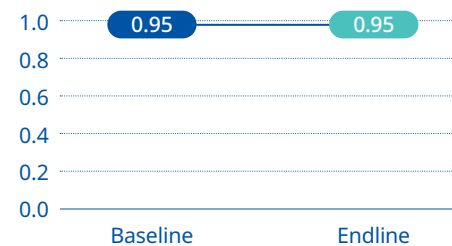


#### ► Turnaround time



**Sample turnaround time:** Number of hours that it takes to produce a new sample (for a new style). It establishes a baseline to calculate the sample room capacity and efficiency.

#### ► Hit rate

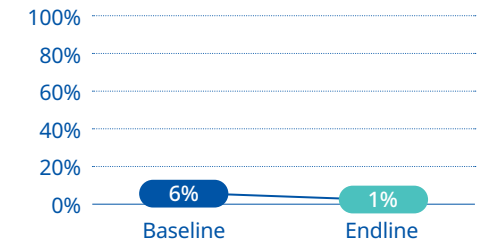


**Sample hit rate:** Proportion of accurate samples over a period of time (does not include style changes by buyers).

### Finishing room

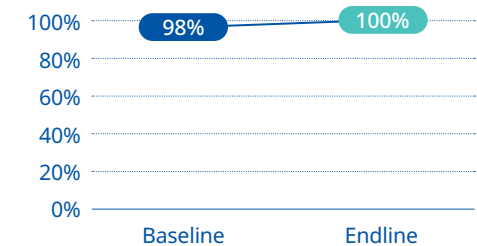


#### ► DHU



**Finishing room defect rate (defects per 100 units):** Average number of defects found per 100 inspected units (lower DHU indicates higher quality), can be calculated separately for each line, or for all lines together.

#### ► Shipment audit passing rate



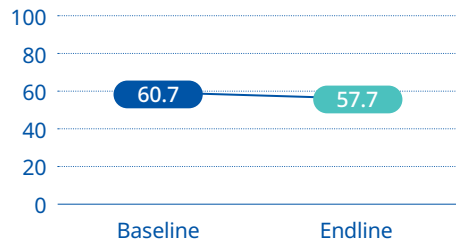
**Shipment audit passing rate:** Proportion of shipment audits (or buyers' audit) the factory passed on the first trial.

## System improvements

### Factory systems

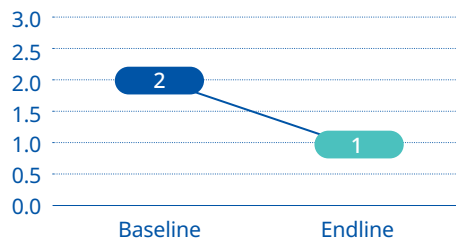


#### ► Average order-cycle time



**Order cycle / lead time:** Amount of time (days) it takes to process an order.

#### ► Accidents and near-misses

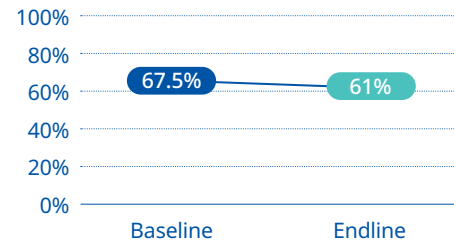


**Number of accident and near- misses:** Number of accidents and near-misses (almost accidents) over a certain period of time (month).

### Working conditions



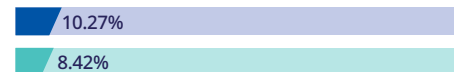
#### ► Overtime



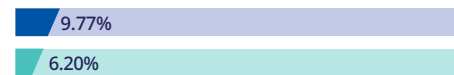
**Overtime:** Extra time (hours) worked as a proportion of the total time (hours) worked.

#### ► Staff management

**Absenteeism rate (%) over the past month**



**Turnover rate (%) over the past month**



■ Baseline ■ Endline

**Absenteeism rate:** The time (days) employees were absent, as a proportion of the total amount of time worked

**Turnover rate:** Number of employees who leave must be replaced, as a proportion of the total employees.

### Production systems

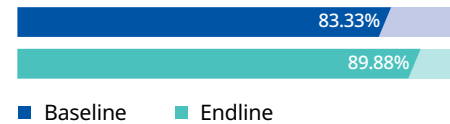


#### ► On-time delivery rate



**On-time delivery rate:** Proportion of placed orders delivered to the buyer over a certain period of time.

#### ► Capacity utilisation



**Capacity Utilisation:** Capacity used per order, monitored monthly.

#### ► Order-to-ship ratio

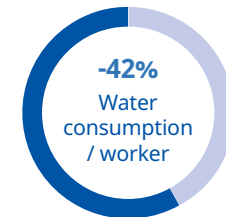


**Order-to-ship ratio:** Number of pieces shipped compared to pieces ordered.

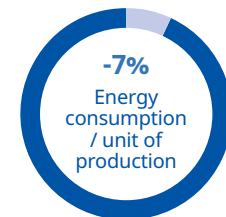
### Environmental sustainability



**Material waste / month:** Amount of material (fabric, thread, trims, cardboard, packaging, etc.) wasted over a month.



**Water consumption / worker:** Amount of water used per employee.



**Energy consumption / unit of production:** Amount of energy (electricity) used to produce one unit of production.



# FIT as a toolset

## 1. Summary

The Factory Improvement Toolset (FIT) is a self-facilitated, activity-based learning approach designed to support garment manufacturers in their efforts to improve productivity, competitiveness and working conditions by upgrading production systems and factory practices.

This case study provides an in-depth look into the use of FIT in Bangladesh, where 11 factories utilised an in-factory intervention over six months with the support of trained facilitators. Out of 11 factories, ten factories received facilitation support till roll out. In these ten factories, four factories were supported for ten months and six factories were supported for five months. All ten enterprises engaged in the FIT have reported considerable improvements in the respective areas of intervention, including but not limited to:

► **Increased efficiency of internal processes:** Several factories experienced notable improvements in productivity-related key performance indicators (KPIs). For instance, in the storeroom, factories experienced on average, a decrease of material retrieval time by 50 per cent and an increase in space utilisation by six per cent. In the sewing room, the target achievement rate increased by nine per cent, WIP reduced by 12 per cent and the defect rate has decreased by 12 per cent.

- **Improved communication flow:** Both qualitative and quantitative data show that the FIT peer-learning approach facilitated the improved flow of communication in the factories, by building trust and breaking boundaries.
- **Encouraged worker motivation and commitment:** Workers report that they experienced increased motivation and commitment on productivity-increasing initiatives after FIT. By being invited to raise their concerns and share their knowledge, they experienced motivating recognition that further impacted their engagement.

Through a particular focus on the in-factory service model, this case study illustrates how factories, development partners and brands can choose from a wide range of tools and delivery models to customize a programme that aligns with their scope and vision to better compete in the global marketplace. Two additional intervention models will also be introduced for further comparison and illustration.

The modules were also tested on two leather goods manufacturing factories. Both factories showed very good results by implementing the production systems module

On average, the on-time delivery rates improved by ten per cent, capacity utilization improved by 24 per cent and order lead time decreased by two per cent. New KPIs, like material wastage and cut-to-ship ratio capturing were started as a part of the implementation of the FIT project.



### The FIT in-factory model

Sessions are held on the factory premises. When organizing a new session, you, together with a FIT coordinator from the factory, will determine which workers will join the session and form groups. This model allows for limited interference with production deadlines and adaptation to factory needs.



### The FIT classroom model

An intervention where FIT sessions are delivered completely in an external venue. This model provides a low-cost way of exchanging knowledge and experiences across factories, as it is possible to organize activities for multiple factory representatives simultaneously.



### The FIT laissez-faire model

An intervention well-suited for organizations that would like to contribute to garment factories' enhanced productivity and working conditions, but have limited time and capacity. The model allows organizations to simply share the content widely – via websites, emails or partners – so that factories can access and potentially run sessions without external involvement.



### The blended model

The blended model is a combination of the first two. In this model, FIT sessions are delivered in an external venue as well as in-factory through a two-step intervention, to rapidly scale the program. For this to succeed, factory representatives attending the sessions will replicate the module in their work areas and report back to the session regarding progress.

## 2. Methodology

This case study is based on multiple data sources from one intervention, as well as additional data on two other approaches. These sources consist of interviews, observational data, and baseline-endline survey results, all of which have been analysed to develop key findings. The ILO followed a gender-inclusive approach to ensure that results represented diverse perspectives.

## 3. How to use FIT

FIT has a flexible delivery model that can be easily adapted to the needs of any enterprise. FIT sessions can be delivered as a one-off activity or combined into a customized factory programme. Service providers and factories can choose appropriate modules from a wide suite of tools and the highly participatory methodology ensures that the difficulty level is automatically adjusted through group discussions. There are several different service models available, with four prime examples listed on the next page.

## 4. Benefits of FIT

Actors involved in the interventions have noted how the unique methodology assisted in improving both productivity and working conditions by upgrading production systems and factory practices. At the core of the responses from participants is how inclusiveness and empowerment of workers facilitated this upgrading and led to innovative problem-solving. According to participants, key benefits of FIT included:

- Increased efficiency of processes through inclusiveness.
- Improved communication and teamwork.
- Higher workers' motivation and commitment.

FIT brought together workers, managers and supervisors to identify and address relevant challenges in the factory. The intentional effort to ensuring a diverse cohort, along with the unique peer-learning methodology allowed for a broadening of perspectives as well as improved communication and workplace relations.

The activity-based style of learning prompted participants towards reflection, discussion and innovation. Specifically, the involvement of lower-level workers contributed to enhanced productivity as they were able to provide first-hand knowledge to production challenges. The easy to implement action plans ensured multiple smaller actions, leading to a greater impact on the KPIs. Such actions as are taken one at a time which helps in easy adaptation throughout all levels.

By increasing communication, participants were able to build trust and break some of the hierarchical barriers which often limit workers' ability to raise concerns.

---

►► Among the modules we have already prepared here were some action plans that were very effective for us. One of them was absenteeism, which we have been able to reduce by three per cent here. We have also found some remarkable improvements in our fabric recut percentages and utilisation percentages. Overall, my experience was very good.

► Project Coordinator

---

►► By utilising excess capacity, the hourly production of 20-40 pieces of my overall line has increased. I thank the ILO for the things I learned through them (FIT), such as line balancing, achieving line targets, and so on.

► Supervisor, sewing



## 5. Challenges and tips for success

### Adapting the facilitation approach

The follow up of the action plans is crucial for getting the benefits out of the FIT module. Sometimes the action plan was not being implemented and had to be followed up with by the external consultants. While the project's sustainability is highly dependent on the facilitator's capabilities of conducting the module; it is suggested that the factories are provided some external resources for extra knowledge to improve their understanding of industry practices. Additionally, using an internal facilitator may cause implementation challenges related to bias and organizational politics.

### Module development and KPI standardization across industries

Some of the KPIs are relative and do not show the actual status. This could be seen in the sewing section as WIP reduction and in production systems as pieces /employee. While these measures are valid, the units are not absolute.

While some of the modules were very relevant, some factories found the modules to be too basic in terms of knowledge dissemination. The factories with advanced operations wanted inputs regarding advanced manufacturing concepts.

For the leather manufacturing factories, it was difficult to identify with some of the case studies. For rolling out the tools across products and industries, it is suggested that the modules are broadened with more topics relevant across industries.

### Interruptions and logistical issues

Interruptions and unexpected commitments are common in a fast-paced manufacturing environment like the garment industry. However, in the case of FIT, it is essential that workers are present and participating throughout the scheduled training time, as this is an essential aspect of the methodology (group activities) and the key to success. This applies to all types of FIT delivery models but may be different from other (non-FIT) training programmes the factory has utilised. To overcome these challenges, it is recommended to emphasize the importance of attendance and participation in advance and to schedule the session location where interruptions will be minimized. Furthermore, it is important to consider compensation for team members working on piece-rate contracts. This may help effectively incentivize the time and energy required by workers in the sessions for factory improvement.

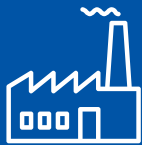
## 6. The future of FIT

This case study illustrates only some of many ways in which the FIT materials can be used. With more than 70 open-source FIT modules available online, in a variety of languages, anyone interested can explore the materials and find an approach that best suits their needs.

Being easy-to-implement and cost-effective, with proven impacts on both productivity and working conditions, FIT has the potential to assist factories, development partners and international brands in facing the competitive landscape of the industry. Check out the ILO Learning Hub today to learn more!

# Different FIT approaches

## 1. FIT in-factory model



<b>Country</b>	Bangladesh
<b>Delivery modality</b>	Delivery in-factory through consultants as facilitators as an improvement programme
<b>Implementing partner</b>	ILO and Rajesh Bheda Consulting Pvt. Ltd.
<b>Number of factories</b>	10
<b>Modules covered</b>	Introductory modules, storeroom modules, cutting modules, sewing modules and production system modules.
<b>Duration</b>	4–10 months

### Background

The intervention in Bangladesh demonstrates FIT's use as an in-factory improvement programme with the dual scope of running the programme, while also developing enterprise capacity.

External consultants were hired by the ILO to conduct the FIT intervention in ten different factories. Certain aspects of the delivery process were pre-determined, such as the number of modules and monitoring tools. The rest were adapted to the factories' preferences.

The FIT programme was implemented initially in six factories. The Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and the Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) nominated three factories each. After the initial discussion, further interest was shown by the Bangladesh Employers Federation (BEF) which led to the nomination of two factories under the Leather Goods and Footwear Manufacturers & Exporters Association of Bangladesh (LFMEAB). The Bangladesh Better Work team then nominated two more partner factories to pilot

the FIT programme. Virtual meeting sessions were conducted with the nominated factories, the ILO, BKMEA, BGMEA, LFMEAB, Better Work and RBC teams with the objective of explaining what FIT is and the benefits for factories.

Overall, 13 management meetings were held. During the meetings all factories indicated their interest in the FIT pilot programme.

### Implementation process

The interventions took place over the course of four to eight months and included the implementation of five to seven modules (depending on the available timeline). The service provider provided capacity building and support with data collection.

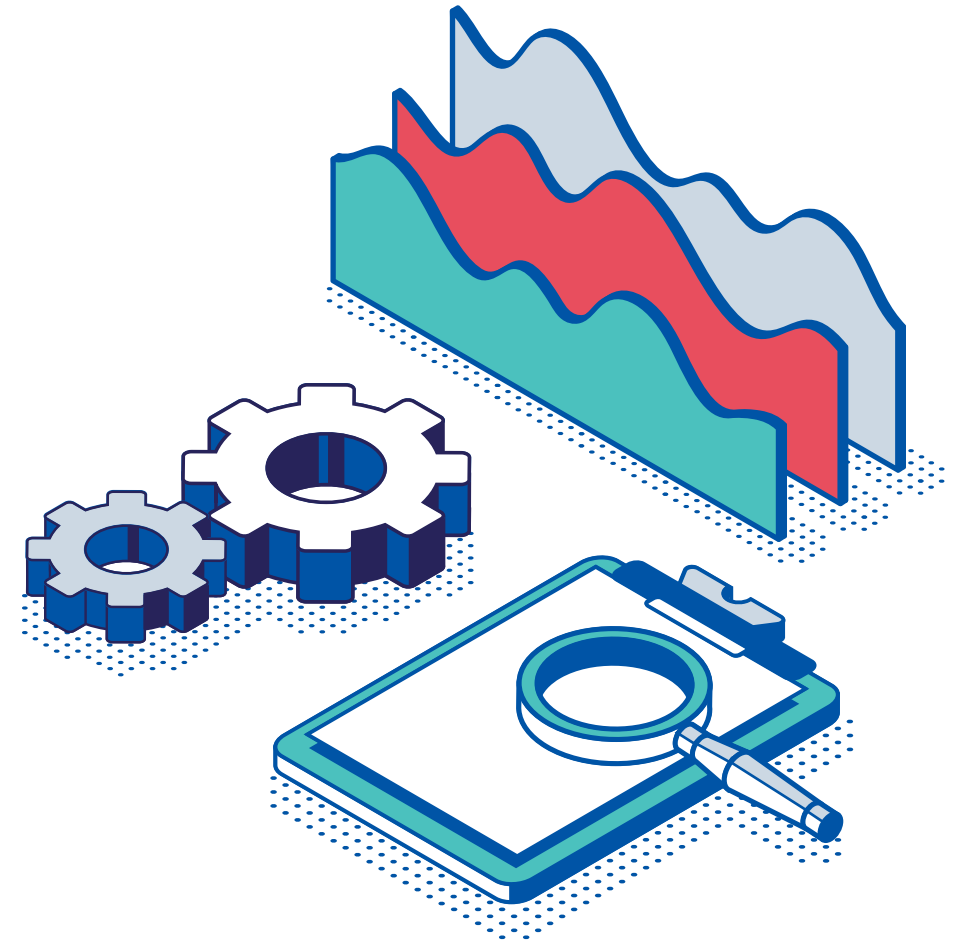
The remaining modules were selected by enterprises by the FIT implementation team, based on the FIT Needs Assessment which indicated areas of priority for factories, after they had completed a comprehensive survey.

Two modules were mandatory:

- IO1 - Setting up your factory for FIT
- IO2 - Solving problems in the factory

## Benefits

- 1. Optimizes limited time as the facilitators go to the factory**  
 Instead of selected participants going to another location for the FIT session, the facilitator goes to the factory, allowing for adaptation to the factory schedule.
- 2. Experienced facilitators deliver the sessions**  
 This approach ensures that the expert delivering the sessions is adequately trained in factory facilitation. Participants who experienced this approach expressed that the facilitator made it easier to participate in discussions.
- 3. Independent facilitators are more likely to be fair and objective**  
 Having an independent, external facilitator limits bias and helps ensure a neutral training environment where existing relationships do not dominate group dynamics.
- 4. Self-sustaining design of projects help factories to explore the modules**  
 During the implementation, all factories were capacitated and encouraged to roll out some modules on their own through the project coordinators. These coordinators were trained as facilitators. The factories have all rolled out at least 2-3 modules and are now implementing the FIT modules on their own.



## Lessons Learned



FIT can be used as an improvement programme implemented by trained facilitators.



FIT can assist development partners and factories in providing scalable capacity-building materials due to the unique methodology integrated with the online availability for key resources.

## Possible Challenges

**The involvement of an experienced, external facilitator** requires some additional coordination and resources, both in terms of time and compensation. However, this helps ensure the FIT methodology will be followed and equip factories for long-term maintenance of the programme.

## 2. Brand-customized model



<b>Country</b>	China
<b>Delivery modality</b>	Delivery in-factory through an international brand as part of an existing capacity-building program
<b>Implementing partner</b>	International brand - garment sector
<b>Number of factories</b>	10
<b>Modules covered</b>	Staff Management Systems
<b>Duration</b>	3 years

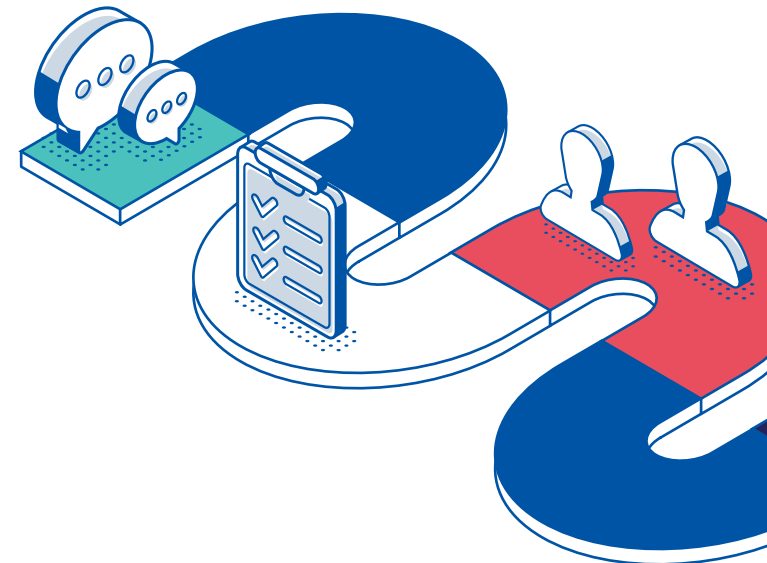
### Background

Although the ILO has outlined several potential service models, organizations and brands are free to customize FIT to their specific needs. International brand A did exactly this when they decided to use FIT to complement an existing capacity-building programme in their supplier factories. The company has established a three-year, self-governance programme aimed at capacity-building for supplier compliance. Strategic partners are enlisted to take part in the program, where they will undergo specific training independent from brand audits.

International brand A used FIT tools to support this capacity-building process in China. In the first year of the program, modules covering staff management systems were implemented. In the second year, participating suppliers were introduced to selected working conditions modules. In the last stage, international brand A plans to share FIT materials with all of their suppliers for them to choose their preferred modules moving forward. International brand A's customized approach shows how FIT can equip diverse global buyers with capacity-building materials that are scalable and flexible to unique manufacturing needs.

### Implementation process

International brand A selected and provided its certified suppliers with FIT materials at different stages in the ongoing capacity-building program. The factories themselves have been responsible for the implementation of the modules; however, several initial sessions were conducted by the brand to train the internal representatives on module facilitation. The factories have been given the flexibility to choose the participants for the different modules and to determine the strategy for implementation. They have initiated further scaling of the programme by applying wide utilisation of the communication modules across different department teams.



## Benefits

### 1. Ready to use and customize in order to fit company's distinct needs

Brands, organizations, and factories have access to a wide selection of ready-to-use tools to best meet their unique needs.

### 2. Easy to access and distribute

The FIT tools can be easily accessed on the ILO Learning Hub where organizations can download material that fits their needs. The FIT tools are also easy to distribute, as the modules follow an intuitive structure and have already been translated into multiple languages. Several introduction guides can also be downloaded and shared.

### 3. Effective monitoring systems available

The utilisation of Qualtrics ensures the availability of monitoring systems for organizations to capture data based on FIT indicators.

### 4. Can build upon or supplement an existing program

By using FIT modules, brands and buyers can supplement their existing capacity-building programs. In the case of international brand A, the main coordinator argued that even when factories have internal compliance staff and well-functioning teams that could carry out trainings on their own, they may still benefit from additional support. In this case, the FIT material can be provided and utilised in-factory.

### 5. Easy to train/introduce

The FIT methodology is simple and clearly designed for brands or enterprises to take up on their own.

---

►► It is different to other programs, because there are case studies to review. You know that they can actually do it with their factory workers.

► International brand A, Senior Manager

---

►► I think the FIT tool itself is very well designed into a step-by-step style. It makes me very comfortable as a trainer, because I'm obviously not a professional trainer, but it can guide me to become more confident. It definitely gives me more confidence in facilitating trainings when I use the material.

► International brand A, Senior Manager

---

►► The FIT training is not something like, you know, everybody, sit here, sit down and then listen to me. Instead, there are times that they have a lot of discussion in the small groups.

► International brand A, Senior Manager

## Potential challenges

### Monitoring improvement indicators can be challenging

By letting suppliers implement FIT on their own, difficulties may arise with monitoring and capturing results. This can be overcome by highlighting and encouraging use of the different monitoring tools available online on the Learning Hub. Suppliers can also utilise their own monitoring systems. Measuring indicators at the base and endline level is a way to encourage continuous improvement.

## Lessons learned



FIT can be used to complement existing capacity-building programs to integrate existing materials.



The FIT material can be customized to brand preferences, needs and objectives allowing the selection from a wide range of topics.



The FIT monitoring tools can be used to support the brand's customized delivery model as the FIT tools are flexible and agile in its application mode.

### 3. Blended model



Country	Thailand
Delivery modality	Classroom-based delivery by an external facilitator for factory representative, who will then replicate in-factory
Implementing partner	International brand B – non-garment sector
Number of factories	9
Modules covered	Staff Management Systems



#### Background

International brand B, which operates in a non-garment sector, used the FIT blended model to promote decent work and gender equality in their business partners’ factories. They wanted to assist their business partners in empowering their employees to access soft skills, with a particular focus on women. This was done through a two-step intervention, where the first session was delivered in an external venue. Here, representatives from the different business partners met up and participated in classroom introduction and training sessions on the FIT methodology and material. After this participation, the representatives were familiar with the material and embarked on their role as FIT facilitators within their respective factories. By running the same sessions with the internal factory staff, the business partners managed to reach more than 1,000 factory employees in total.

More than 20 factory improvement plans were reported back to international brand B, after the delivery of the sessions in the factories. Some of the areas addressed in these plans, through different internal projects, were ergonomic improvement projects, space planning, capacity-building for internal auditors and improving the mental health of employees.

Through the FIT sessions, the project assisted in developing soft skills learning opportunities for employees. The employees of the business partners of international brand B reported that they enjoyed the sessions, particularly since everyone could share their ideas freely and equally. They further highlighted how the FIT sessions emphasized the value of sharing knowledge for factory improvement, and

that they learned how to solve challenges in the factory more systematically. Thus, the results of FIT in the case of international brand B show how FIT is highly applicable beyond the garment sector.

#### Benefits

##### 1. Cost-effective and scalable

The blended model makes it possible to reach many suppliers with limited investment in terms of time and cost due to the classroom-based inception.

##### 2. Opportunity for brands to impact the focus of improvement

The blended model allows for brands to nudge the focus of the improvement processes in their suppliers. By choosing the modules to use in the inception period, the brand provides a direction for further improvements. Through this, the brand can impact the focus of the suppliers to align with the brand’s interests.

#### Possible challenges

##### Limited control of efficiency of facilitation

A risk of this model is the reliance on external factory representatives and the lack of control in ensuring their ability to implement the facilitator role, as one-on-one time with the representatives is limited. To overcome this, there should be a significant emphasis on the facilitation approach during the classroom sessions. Facilitators should also be encouraged to review the facilitation guide available at the Learning Hub. Additionally, it may be helpful to monitor the first few sessions and provide feedback.



# Bangladesh factory A

## Factory profile

**Location:** Mirpur, Dhaka



## FIT approach

**Delivery modality** Delivery through a network of trained facilitators in-factory

**Department of intervention** Storeroom

**Duration** 4 months

**Modules covered** IO1: Setting up the factory for FIT  
IO 2: Solving problems in the factory  
ST1: Receiving Material Storeroom Operations  
ST3: Storing Material Storeroom Operations  
ST4: Record Keeping Storeroom Operations  
Rolled out 3 modules in cutting

►► By implementing the modules, we came to know about the various gaps in our production processes. Being from HR and having a welfare background, earlier I didn't have much knowledge about those. Now, though I am not producing pieces, I can understand how production can be improved.

► **FIT Coordinator, Welfare Officer**

►► Space is always a constraint but FIT made us think in a different way. Now my store helper has organized the store with the fast-moving goods in the front rows. This has helped us to reduce our retrieval time. My team has now started considering all parameters. We have rolled out the modules of cutting. Now, they are trying to club similar width rolls together. FIT has improved the overall thinking of our team.

► **Factory GM**

## Staff and management feedback

Following the FIT methodology, the team identified and implemented more than 12 initiatives and sub-projects over the course of three months, having a significant impact on the efficiency of operations in the storeroom department. The factory management has reported that FIT facilitated the team to make breakthrough improvements in operations under a challenging business scenario.

## Improving processes through inclusiveness

Through teamwork, managers, supervisors and workers have improved their ability to identify problems and solutions. Having people of different roles engaging together has broadened perspectives and optimized innovative solutions.

Factory A's coordinator found that involving the decision makers along with the grassroots level staff helped in implementing the action plans faster. This has also helped in getting better buy-in for the action plans.

After the initial implementation in store room operations, the team has developed a better understanding of the processes, as FIT helped them identify the gaps in the existing process. The involvement of various departments helped in improving the understanding of production related processes of staff who are not directly related to production.

## Productivity improvements



Reduction of retrieval time by **50 per cent.**



Reduction in recut percentage by **36 per cent.**



Initiated marker efficiency capturing. Currently at **87.5 per cent.**



Roll segregation introduced in the given space leading to better services to cutting from stores.



Improved documentation through capturing fabric remnant details.



Better visual display through updated bin cards and dashboard updating.

## Changes in attitudes and practices



Increased worker motivation and commitment



Improved abilities in teamwork and cooperation



Increased attention to progress and monitoring



Joint problem solving accommodated for improved problem identification

By involving workers, Factory A was also able to identify important issues related to both productivity and the working environment in the factory. In a FIT session, the store room staff realized the importance of keeping the fabric rolls segregated by width. This would help them to minimize retrieval times and also save fabric. The factory has now further strengthened the process by engaging the fabric suppliers to send them rolls pre-segregated from the mills. This has helped them by improving fabric utilization as well as decreasing retrieval time.

► Since I am in the quality control department, all departments are under my purview. I must ensure that all processes are maintained according to the set standards. During the FIT modules, we have been able to successfully implement changes, aiding both production and quality.

During the modules, we debated the problems and developed the action plans. Due to the group discussion, the delays have been reduced. We can now implement actions which have benefits across departments and it has helped to improve overall production processes.

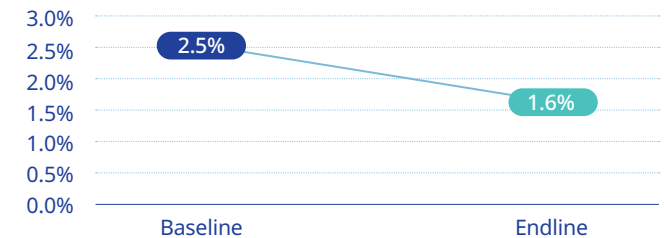
► AGM, Quality

## Self-roll out by factories

FIT's activity-based approach encouraged active participation by all team members in the identification of factory problems and creation of solutions. Actively engaging with the module material prompted the participants towards reflection, discussion, and creative solutions.

With the knowledge being driven by a facilitation approach, the factory self-implemented four modules of cutting. The roll out was done after the aided facilitation and support from ILO was withdrawn. This demonstrates the sustainability of the FIT programme. The inclusion of the decision makers helped in generating the buy-in, while the FIT coordinators kept the project on track with constant follow up and maintaining of timelines. After the initial introductory push, the modules could be delivered easily by the factory team due to lesser time commitments, easily implementable action plans and instant tangible benefits were visible on the on-ground team.

### ► Recut percentage reduced by 36 per cent



## Improved interdepartmental cooperation through cross-cutting action plans

Through group discussions, action plans were developed that had benefits across departments. Due to space constraints, Factory A could not segregate the fabric rolls-shade, colour, shrinkage, or width wise. After common brain storming, dividers were used in the space to aid segregation. Now the stores can support the cutting department better. This has also resulted in better quality of stitching due to reduced shading issues. Along with the segregation, the factory has also started documenting the fabric remnants. This has given them better monitoring of their cut-to-ship and fabric-to-ship KPIs.

# Bangladesh factory B

## Factory profile

**Location:** Ashulia, Savar, Bangladesh



## FIT approach

**Delivery modality** Delivery through trained facilitators in-factory

**Department of intervention** Storeroom

**Duration** 6 months

**Modules covered**

- IO1: Setting up the factory for FIT
- IO 2: Solving problems in the factory
- SL1: Using bundle system
- SL3: Line planning
- SL5: Receiving materials
- SL8: Line balancing

## Staff and management feedback

Following the FIT methodology, Factory B's FIT team successfully implemented initiatives in their sewing and cutting sections which positively impacted productivity. FIT also improved the communication in the factory and contributed to happier and more motivated workers. This has resulted in improved quality indicators and better worker engagement.

## Improving processes through engagement of multiple of stakeholders

Through working together, managers, supervisors and workers improved their ability to identify problems and solutions. Factory B has very high style changes, which led to lower efficiencies and higher defect rates (DHU) due to frequent style changes. During the FIT modules, the planning department was involved and similar styles were planned on the same line. The operators are now better prepared while performing on the line. This led to improved efficiency and a reduced alteration rate.




►► Earlier our opinions were not heard. Now in FIT I feel happy that our opinions are given importance. Now I can speak my mind and help in solving problems. After FIT was implemented, even the senior operators work with more motivation and dedication.

► Operator, Factory B

►► Through the FIT modules we have been able to develop both our productivity and quality. Through FIT, we have started communicating better with our operators. This has resulted in better relationships with our workers.

► Supervisor, Factory B

## Productivity improvements

-  Line target achievement rate improved by **four per cent** in the same product.
-  DHU levels reduced by **50 per cent**.
-  Bundle size reduced to **20 pieces or less**.
-  Uncut thread minimized.
-  Improved material utilisation by incorporating trims reconciliation in the ERP system.

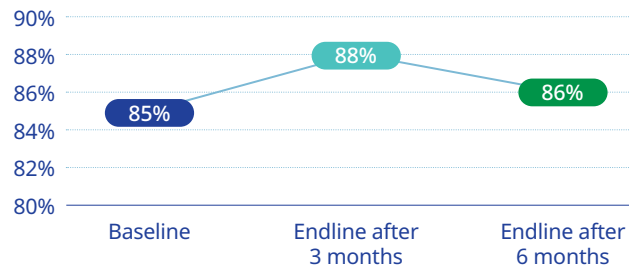
## Changes in attitudes and practices

-  Better worker and management communication
-  Improved abilities in teamwork and cooperation
-  Increased attention to product quality and productivity
-  Joint problem-solving approach developed throughout the factory

## Improved communication leading to better capacity utilisation

In Factory B, working across departments with FIT's activity-based approach allowed for unique learning opportunities through the sharing of diverse perspectives. During the bundle system improvement points, the bundle sizes were fixed to reduce defects. This resulted in better WIP management, reduced defect levels and better bundle management. This also improved the target achievement rate.

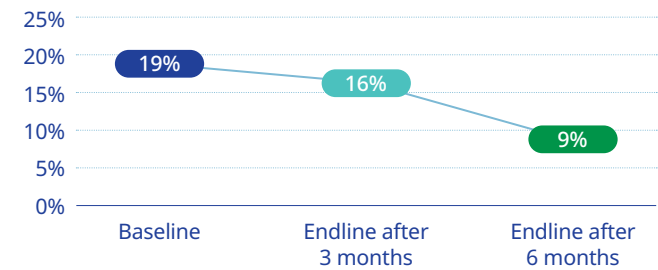
### ► Line target achievement



## Improved problem-solving approach through team work

FIT modules ensured that the approach of the factory towards problem-solving changed. Initially, once a problem was detected, it would be followed up by a single person and he/she would be responsible for solving it. After FIT, the approach to problem-solving has changed. Once a problem is encountered, the related stakeholders get together in a short meeting, action points are discussed and implemented, resulting in the problem being solved immediately.

### ► Defect (DHU) Rate



►► Our existing working standards and procedures are being analyzed again to fine tune them. We have started in-depth analysis of our existing system to figure out the loopholes and fine tuning it. Our teamwork has improved, and we have built good relationships during the discussions.

### ► Project Coordinator

►► Each module gave us something which was useful for us. For example, we used to struggle with our DHU levels. After the FIT module, we started doing a morning meeting with the operators and supervisors to discuss the problems faced on the lines. The DHU levels improved drastically. The DHU levels for uncut thread reduced to 1-2 per cent from 6-7 per cent.

Most of our problems were solved through this daily meeting itself. For the other two per cent, we followed our action plan developed during the module and it worked well. Our operators are now more responsible towards their job and our DHU levels have dropped significantly.

### ► Project Leader

# Bangladesh factory C

## Factory Profile

**Location:** Shafipur, Gazipur, Bangladesh



## FIT Approach

**Delivery modality** Delivery through trained facilitators in-factory

**Department of intervention** Operations

**Duration** 3 months

**Modules covered** IO1: Setting up the factory for FIT  
IO 2: Solving problems in the factory  
PR2: Eliminating bottlenecks  
PR3 & PR4: Measuring productivity  
PR5: Material productivity

## Staff and management feedback

Following the FIT methodology, the team identified and implemented several initiatives that made a significant impact on their production KPIs, including quality levels. Operator skilling was strengthened as a result of the brainstorming sessions, leading to reducing bottlenecks in several processes and the improvement of capacity utilization.

## Improving processes through inclusiveness

By working together, managers, supervisors and workers improved their ability to identify problems and solutions. In Factory C, this led to an increase in the on-time delivery rate by 17 per cent and a reduction in average lead time by five days. This was possible due to improved processes implemented as a part of the action plan from the FIT modules.

►► Everything that we implemented was done after discussion only. This has been very effective in improving our product's quality.

► Quality Controller

►► The solutions that came out of the problem-solving session were impossible to get through one person. This was possible due to the collaborative approach only.

► IE, Cutting



## Improved material utilisation

The factory implemented 11 action plans, including a cut panel inspection and use of patterns for better leather cutting. Also, thread consumption and thread reconciliation were introduced as a KPI. After this, the job method explanation has been made a part of the process. This has also helped in reducing bottlenecks due to skill shortages. Section wise rejection monitoring was introduced and a SOP for dispatch and receipt was developed.

## Improved quality levels through implementation of KPIs

Leather is a natural material and is not uniform in nature, therefore Right First Time (RFT) is very important for this factory as they produce leather footwear. Material usage has been included as a KPI in the cutting section. The team has also worked on improving the sample hit rate. This was not measured before and now has resulted in better control of processes.

►► We always used to discuss the problems amongst the management team. After FIT we realised that we need to involve the workers more in the problem-solving process. This has given us good results.

Any system needs to be developed and customized as per requirements. These modules can be further customized according to the leather industries and particularly for footwear.

This project has made us look at processes in a different manner. We now have included certain processes as part of our KPIs. This has resulted in reduced lead times.

We hope we can work further with the ILO and RBC, so this sector will improve in Bangladesh.

► **Storeroom worker**

## Productivity improvements



Reduction of lead time by **five days**.



Initiation of the cut-to-ship ratio as a KPI.



On time delivery rate improved by **17 per cent**.



**Three per cent** improvement in productivity/ person.



Improved capacity utilisation by **42 per cent**.



Initiated material wastage as a KPI.



**1.22 per cent** improvement in the order to ship ratio.

## Changes in attitudes and practices



Better worker and management communication



Improved abilities in teamwork and cooperation



Improved KPI monitoring



Increased attention to product quality and productivity

# Bangladesh factory D

## Factory Profile

**Location:** Savar, Bangladesh



## FIT Approach

**Delivery modality** Delivery in-factory through trained facilitators in-factory

**Department of intervention** Operations

**Duration** 3 months

**Modules covered** IO1: Setting up the factory for FIT  
IO 2: Solving problems in the factory  
PR1: Planning production  
PR2: Eliminating bottlenecks  
PR3: Measuring productivity  
PR4: Improving process



## Staff and management feedback

Following the FIT methodology, the team implemented 15 action plans resulting in improvements in teamwork, efficiency, processes and better production planning.

Factory D is now better equipped in solving problems through interdepartmental cooperation and faster response time.

## KPI meeting

The factory initiated the documentation for additional KPIs like cut-to-ship, order-to-ship, on-time delivery and capacity utilisation.

This has resulted in getting instant feedback by the department heads and thus, improving the process efficiencies.

Due to FIT, whenever we raise issues, the problems are now solved then and there by our management. Now the work environment and team work has improved. We had some bottlenecks which were due to skill gaps. This was solved by training the workers. This was achieved as the team accepted my problem and helped me to solve it. I thank FIT for making my work easier. Now we are able to work in a better manner.

► In Charge, Colouring section

## Productivity improvements



On time delivery rate improved by **two per cent**.



Improved capacity utilisation by **six per cent**.



Initiated time and action plan.



Initiated operator skilling.

## Changes in attitudes and practices



Better worker and management communication



Improved abilities in teamwork and cooperation



Improved KPI monitoring

## Improved production planning through TNA

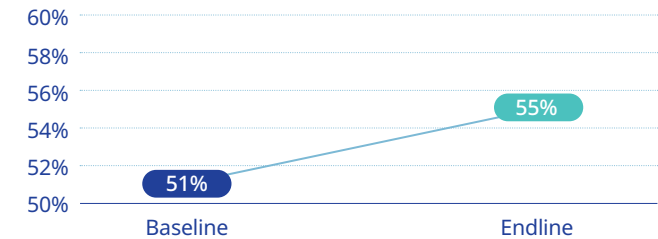
Previously, there was no time and action plan. After FIT, this has resulted in better production planning, improved efficiencies, and better productivity.

As the TNA was introduced, the bottlenecks could be better identified, and an action plan could be developed to mitigate the problems.

## Improving processes resulting in improved on-time delivery

Interdepartmental discussions resulted in better action plans impacting the lead time. The bottlenecks in the colouring and skiving processes were eliminated by changing the layout, skilling the operators and adding roller machines. This has resulted in better capacity utilisation and better efficiency.

### ► Line efficiency improved by ten per cent



►► FIT made us sit together and go through our problems as a team. This was challenging but made us take decisions faster. Also, the action plans helped in solving multiple problems with less actions. We are now in a better position to solve our problems than before. This has improved our efficiency, capacity and has debottlenecked our processes.

► Production Manager





Produced by the Decent Work in Garment Supply Chains Asia project,  
with the support of the Swedish International Development Agency (Sida)



## ▶ Contact

### **ILO Decent Work Technical Support Team for East and South-East Asia and the Pacific**

United Nations Building, 10th Floor, Rajdamnern Nok Avenue, Bangkok 10200, Thailand

T: +66 2 288 1234

F: +66 2 288 3058

W: [https://learninghub.ilo.org/program/Factory\\_Improvement\\_Toolset\\_FIT](https://learninghub.ilo.org/program/Factory_Improvement_Toolset_FIT)

W: <http://www.ilo.org/asiapacific>

E: [williamsd@ilo.org](mailto:williamsd@ilo.org)

ISBN: 9789220384657 (print)

9789220384664 (web PDF)