Factory Improvement Toolset case studies

Pakistan
These case studies have been developed 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 Ingvild Solberg Farstad under the supervision of Charles Bodwell, Job Creation and Enterprise Development Specialist of the ILO’s Regional Office for Asia and the Pacific.

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

Authors: Ingvild Solberg Farstad and Charles Bodwell.
Background

Decent Work in Garment Sector Supply Chains in Asia

The Decent Work in Garment Supply Chains Asia project was funded by the Government of Sweden, and provided concrete follow-up to a resolution adopted in 2016 at 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 improving the 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 International Labour Organization (ILO) and other development partners to further compile, analyze and disseminate best practices and to 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 EBMOS, 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 at 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 collected 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: 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).

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).

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**
  - Baseline: 88%
  - Endline: 83%

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

- **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**
  - Baseline: 63.25%
  - Endline: 88%

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

Sample room

- **Turnaround time**
  - Baseline: 175 minutes
  - Endline: 168 minutes

  **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.

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

Finishing room

- **DHU**
  - Baseline: 6%
  - Endline: 1%

  **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.

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

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

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

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

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

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
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<tbody>
<tr>
<td>Order cycle / lead time:</td>
<td>Amount of time (days) it takes to process an order.</td>
<td></td>
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<tr>
<td></td>
<td>60.7</td>
<td>57.7</td>
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Working conditions

- Overtime

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
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<tbody>
<tr>
<td>Overtime: Extra time (hours) worked as a proportion of the total time (hours) worked.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>67.5%</td>
<td>61%</td>
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- Staff management

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
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<tbody>
<tr>
<td>Absenteeism rate (%) over the past month</td>
<td></td>
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<tr>
<td></td>
<td>10.27%</td>
<td>8.42%</td>
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<thead>
<tr>
<th></th>
<th>Baseline</th>
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<tbody>
<tr>
<td>Turnover rate (%) over the past month</td>
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<td></td>
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<tr>
<td></td>
<td>9.77%</td>
<td>6.20%</td>
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Production systems

- On-time delivery rate

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<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
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<tbody>
<tr>
<td>On-time delivery rate: Proportion of placed orders delivered to the buyer over a certain period of time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>80.92%</td>
<td>85.75%</td>
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</table>

- Capacity utilisation

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
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<tbody>
<tr>
<td>Capacity Utilisation: Capacity used per order, monitored monthly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>83.33%</td>
<td>89.88%</td>
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- Order-to-ship ratio

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order-to-ship ratio: Number of pieces shipped compared to pieces ordered.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>99.16%</td>
<td>99.80%</td>
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Environmental sustainability

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

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<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
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</thead>
<tbody>
<tr>
<td>Material waste / month</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>-10%</td>
<td></td>
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</tbody>
</table>

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

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<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water consumption / worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-42%</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Endline</th>
</tr>
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<tbody>
<tr>
<td>Energy consumption / unit of production</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>-7%</td>
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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 Pakistan, where ten factories utilised an in-factory intervention over six months with the support of trained facilitators. 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 store room factories experienced on average, a decrease of material retrieval time by 70 per cent and an increase in space utilisation by six per cent. In the sewing room, the target achievement rate increased by ten per cent and the defect rate has decreased by 22 per cent.

- **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.

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 analyzed to develop key findings. The ILO followed a gender-inclusive approach to ensure that results represented diverse perspectives.

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.
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 program. 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.

It is a good experience where workers, managers and supervisors are sitting together equally and sharing their views. It has been difficult to find and talk with managers in the factory. The FIT module’s discussions break that gap, and let us to share views and correspond with them.

Storeroom worker

What is the impact of all this? We are giving the confidence to workers that their suggestions are being listened to. As a result, we have opened a channel for the workers to come and talk to us, give their suggestions. So, this has now become a norm in stores.

Store incharge
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 include:

- 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.

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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.

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

5. Challenges and tips for success

Adapting the facilitation approach

The FIT facilitation approach will be new for both the trainer (taking up the facilitator role) and the participants. This may cause initial resistance, as this inclusive approach is unlike many traditional programs. Encouraging facilitation is at the core of the FIT methodology and challenges can be overcome by investing time in the practice of facilitation or by hiring service providers with experience in facilitation.

Furthermore, downloading the FIT Facilitator Guide will provide guidance on how to best take up the facilitator role through well-established best practices.

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 programme 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 the many ways in which FIT material can be used. With more than 70 open-source FIT modules available online in a variety of languages, anyone interested can explore the material 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

Background

The intervention in Pakistan 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’s ILES project 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. All enterprises had been participating in the ILO’s SCORE programme and were selected based on their volunteer engagement after being introduced to the toolset.

Implementation process

The intervention period ran for six months and consisted of four FIT module delivery sessions with assistance and data sharing from external consultants. The consultants were responsible for organizing the implementation (setting dates for initial visits and follow-ups) and guiding data capturing and effective use of the monitoring tools. Additionally, they supported capacity-building for the enterprise to independently carry on the utilisation of the FIT tools.

Two modules were mandatory:

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

The two remaining modules were selected by the FIT team, based on the FIT Needs Assessment which indicates areas of priority for factories after they complete a comprehensive survey.

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1. The ILES project works in partnership with the Delegation of the European Union to Pakistan and the ILO Office for Pakistan to help tripartite partners and other stakeholders strengthen national labour and environmental compliance with international standards to increase competitiveness, sustainable and inclusive growth in Pakistan.

2. The SCORE programme is a global ILO programme improving productivity and working conditions in SMEs through classroom training and in-factory consulting.
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.

Possible challenges

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

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 material due to the unique methodology.
2. Brand-customized model

### 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.

### Table

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

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

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.
Pakistan factory A

Factory profile

Location:
Karachi, Pakistan

FIT approach

Delivery modality
Delivery through a network of 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
- ST1: Receiving Material Storeroom Operations
- ST3: Storeroom Operations
- ST4: Record Keeping Storeroom Operations

The experience was excellent! It brought out the best from the team. The focused discussion and activities clearly show that everyone has knowledge, experience and thinking ability. Therefore, the best option was identified for actions.

▶ Storeroom worker

▶ One of my workers suggested: “when we are taking the old stuff from the rack, why don’t we clean it first before arranging it in the shell, and then put the new stock at the back?”. So, in this way, the housekeeping of the store is also improved, and this was an idea from a worker which I didn’t know.

▶ Store incharge

Staff and management feedback

Following the FIT methodology, the team identified and implemented more than 25 initiatives and sub-projects over the course of six months, driving a significant impact on the efficiency of operations in the Storeroom Department. 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 store in-charge emphasized that the flexibility in the FIT team composition benefited the problem-identification process. This was highly due to the involvement of workers in the team.

The introduction of “First In, First Out” (FIFO) and “First Expired, First Out” (FEFO) storage methods contributed a reduction in waste. This initiative was developed as a result of the worker’s first-hand knowledge of the factory floor.
**Productivity improvements**

- Increased space availability by **3 per cent**
- Increased safety in the workplace by establishing routines and safety equipment
- Reduced fuel in transportation of chemicals in-factory by **35 per cent**
- Reduction by **54.8 hours** consumption per month in time spent on operational activities
- Decreased costs due to elimination of expired items

**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, a worker identified how 200kg drums were manually handled, creating a health risk for the workers and slowing down processes. By highlighting this need, a trolley was eventually provided, improving the working environment and productivity at the same time.

**Improved communication through teamwork**

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. The approach also facilitated improved communication flow in the factory. Working together in teams removed barriers between workers, supervisors, and managers. Now, the workers in the store department of Factory A can reach out to the managers to raise concerns, creating a new norm of communication in the department.

**Increased worked motivation and commitment**

Creating a platform for workers to raise their concerns had a significant impact on the communication in Factory A. When workers felt that their concerns were taken into account, they gained the confidence to further communicate with management. The activity-based, group work assures that everyone was committed to the initiatives agreed upon before implementation. Increased motivation can also be seen in a few workers who noted appreciation in receiving recognition from supervisors. Some workers mentioned that they have even begun to integrate FIT lessons outside of work.

> **When I applied the suggestion for implementation, it triggered a feeling among the other workers that someone is listening to us, and that our suggestions will get implemented. What is the impact of all this? Because we are giving the confidence to the worker that your suggestions are being listened to - as a result, we have opened a channel for the workers to come and talk to us, give their suggestions. So, this has now become a norm in stores.**

**Store incharge**

> **It was simply excellent! Before we used to follow the hierarchy and seldom approach the Manager of Stores. After FIT, the gelling of the team has removed barriers. Now, the flow of work does not stop and the communication is much faster.**

**Storeroom worker**

> **The best feature is that all modules are activity-based. For 2.5 to 3 hours the complete focus is the activities of the process. It resulted in thinking, discussion, and participation from all. The improvements were made at system level.**

**Storeroom worker**
Pakistan factory B

Factory profile

Location: Karachi, Pakistan

FIT approach

<table>
<thead>
<tr>
<th>Delivery modality</th>
<th>Delivery through a network of trained facilitators in-factory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of intervention</td>
<td>Operations</td>
</tr>
<tr>
<td>Duration</td>
<td>6 months</td>
</tr>
</tbody>
</table>
| Modules covered | IO1: Setting up the factory for FIT  
IO 2: Solving problems in the factory  
ST1: Receiving Material  
ST2: Inspecting Material |

Staff and management feedback

Following the FIT methodology, Factory B’s FIT Team successfully implemented initiatives in their storeroom which positively impacted productivity. This was, to a high extent, due to the involvement of workers, who had first-hand experience of the daily operations of the storeroom. FIT also improved the communication in the factory and contributed to happier and more motivated workers.

Improving processes through inclusiveness

Through working together, managers, supervisors and workers improved their ability to identify problems and solutions. This led to a reduction in average material retrieval time by 25 per cent, which all team members were very proud of. The team highlighted how all participants learned together and were able to contribute to choosing the best solutions.

One of the solutions identified in the FIT sessions was introducing a tagging system that increased space utilisation and made it easier for all workers to find the relevant materials in the store. This increased productivity while also decreasing stress on workers.

“I recommend the management to continue with the FIT programme for the best future for the factory. With small changes, the factory improves.”

Storeroom manager

“...The FIT programme was important for us because it highlighted the problems from the workers’ side. With workers, supervisors and management all discussing at one table, and choosing the best solution.”

Storeroom manager
Productivity improvements

- Increased capacity utilisation by **12.5 per cent**
- Average Material Retrieval time reduced by **25 per cent**

Changes in attitudes and practices

- Increased worker motivation and improved attitudes amongst staff
- Improved communication flow
- Joint problem solving accommodated for improved root cause identification

Improved communication through teamwork

In Factory B, working across departments with FIT's activity-based approach allowed for unique learning opportunities through the sharing of diverse perspectives. The factory's store in-charge found it particularly valuable to learn from other departments. Before FIT, management did not interact much with supervisors and workers, but thanks to the group sessions there is now a platform for healthy interaction and building of trust.

- Normally higher management did not interact with us, but now, because of the FIT, we easily interact with them. Through this, we got a chance to discuss our problems.
  - Store incharge

- The first time, some people were shy and did not talk, but with regular meetings, all workers slowly started participating in the meetings. So, their shyness went away.
  - Storeroom manager

- I found that the workers’ self-esteem increased. Also, the culture is strongly improved.
  - Facilitator

Improved working environment and increased worker’s motivation

Though some workers were initially shy, FIT's facilitation-based approach ensured a safe environment for the workers to use their voices and share experiences. During sessions, they were given the opportunity to express knowledge, concerns and ideas with management. This also seemed to contribute to increased motivation levels, as many managers noted that workers appeared happier and more confident due to this change in workplace culture.
Staff and management feedback

Following the FIT methodology, the team identified and implemented several initiatives that made a significant impact on the efficiency of their sewing line, and in the daily operational meetings. The working environment was also improved by giving attention to the workers’ prayer areas. As a result of FIT’s inclusive, activity-based approach, Factory C participants grew in cooperation and improved their ability to identify mutually beneficial solutions to factory concerns.

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 first-day efficiency (style changeover) of the sewing line from 20 per cent to 29 per cent through the adoption of a checklist procedure for new articles. Due to the success of program, Factory C decided to implement FIT modules in two other departments.

The overall experience of FIT was quite good, we developed a checklist, we planned a meeting card concept, and we improved the prayer area as well.

Industrial engineering officer

They are purely working 8-hours, so they know better than me the real challenge and issues of the sewing floor. So, if you ask them what the issues are, they will more effectively and more efficiently highlight the areas of improvement.

Industrial engineering officer
Productivity improvements

- Increase in first-day efficiency from 20 per cent to 29 per cent (Factory-specific KPI)
- Increased efficiency of daily production meeting
- Reduction in work-in-progress (WIP) by 25 per cent

Changes in attitudes and practices

- Improved working environment and worker motivation
- Improved abilities in teamwork and cooperation
- Increased meetings efficiency
- Joint problem solving accommodated for improved root cause identification
- Issues with women’s prayer room were addressed to improve the working environment

Improved communication through teamwork

FIT encouraged active participation by all team members and led to improved communication in the factory. Workers, supervisors, and managers engaging together in teams narrowed the power-gap and allowed for new perspectives to be heard. The case studies provided real-world examples that everyone could relate to.

In the past it has been difficult to find the relevant manager to discuss issues with. FIT discussions break that gap and let us share views and correspond with them.

 ► Storeroom worker

Improved working environment and increased worker’s motivation

Creating a platform for workers to participate in discussions allowed them the chance to participate in the improvement of their own daily, routine tasks. It also helped management recognize the valuable insight workers can provide. The team activities also increased workers’ confidence to ask questions and to raise issues.

FIT helped me to discuss issues with seniors and other colleagues who I did not reach out to before. Also, working in groups really improved my knowledge, learning new things, and built my understanding of others on the team.

 ► Storeroom worker

The workers can experience real change in their daily tasks. They now feel that their suggestions are valuable in the eyes of management.

 ► Industrial engineering officer

By involving workers, Factory C was able to identify critical issues relating to the working environment. For example, a female worker highlighted the lack of space in the female prayer room. In response, the FIT team introduced a new, clearly visible schedule and improved the environment for female workers.