



# Advancing Jordan's satellite garment factories

POLICY

BRIEF

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## FOREWORD

Over the past decade, Jordan's garment manufacturing industry has maintained an impressive rate of growth. This expansion brings with it the immense potential to create decent job opportunities, including for Jordanian women. The government's "satellite" garment unit model has targeted pockets of rural poverty in Jordan and helped bring over 4,700 Jordanian women into the formal labour market. However, most satellite units are not profitable. In this context, to continue providing decent job opportunities across Jordan while being financially viable, satellite garment factories must be transformed into sustainable businesses.

With support from the World Bank Group and the International Finance Corporation (IFC), Better Work Jordan implemented an 18-month project, "Enhancing the Productivity in Jordan's Satellite Garment Factories". Given the increasing number of satellite units and the model's potential to provide sustainable work opportunities to Jordanians, the project sought to understand the challenges faced by these factories and to explore ways to enhance productivity through improvements in processes and better working conditions.

This report presents the background of the emergence of the satellite unit model in Jordan and its current status. The report draws observations on challenges and best practices documented throughout the course of the project and presents recommendations to help advance the model. Greater coordinated efforts and increased public-private dialogue could help achieve the core mission of the satellite unit model – to provide decent work opportunities for Jordanian women in rural areas.

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## Introduction

Jordan's garment manufacturing sector has enjoyed substantial growth over the past decade. In 2017, garment exports exceeded US\$ 1.69 billion and accounted for some 25 per cent of Jordan's total exports.<sup>1</sup> The sector provides over 70,000 formal jobs and contributes to approximately 20 per cent of Jordan's GDP.<sup>2</sup> Undoubtedly, the garment manufacturing sector remains a key contributor to Jordan's industrial and exporting sectors.

However, the employment of Jordanians in the sector is yet to match industry growth. About 75 per cent of the industry's workforce continue to be migrants, with the majority being from South Asia.

With sustained growth, Jordan's garment industry has the potential to generate decent and new jobs, especially for Jordanian women in the country's poverty pockets.

### BACKGROUND

#### A Missing Link: Garment industry growth and job creation

Jordan's Qualified Industrial Zones (QIZ) and preferential trade agreements have played an important role in driving the country's industrial growth since the 1990s.

Jordan and the United States signed a QIZ agreement in 1996, allowing garments produced in QIZs to enter the United States market duty-free. This was followed by the Jordan Free Trade Agreement (FTA) in 2010, which continued Jordan's preferential duty and quota-free access to the US market. Firms located in such QIZs could also enjoy income and tax exemptions from the Jordanian government.

The impact of the preferred trade status had a dramatic impact on garment exports from Jordan, which rose from US\$ 42 million in 2000 to US\$ 1.25 billion in 2006.<sup>3</sup> Between 2000 and 2008, Jordan saw strong economic growth, with GDP growing at an average rate of 6.7 per cent per year. This growth was led by the manufacturing sector, which grew at 9.7 per cent.<sup>4</sup>

In 2008-9, exports from QIZs declined by some 20 per cent, with signs of the slowdown beginning prior to the global recession<sup>5</sup>. The fall followed international criticism of labour standards of the industry after a number of exposés of human trafficking and labour violations in the sector. In 2009 Jordan's garment industry was added to the US Department of Labor's Forced Labor List. Compounding the slowdown was the arrival of the global recession in 2009.

Since 2009, garment exports have enjoyed significant growth. Today, the industry has some 89 exporting factories that employ over 70,000 workers.<sup>6</sup> Furthermore, after a concerted drive by the government, and with support from international organisations, working conditions in factories have improved and Jordan's garment industry was removed from the US Forced Labour list in 2016.<sup>7</sup>

Jordan's garment production is expected to expand, given the recent growth rate (9.6 per cent in 2017) as well as new preferential trade agreements, such as the European Union's simplified Rules of Origin trade rules for Jordan.<sup>8</sup>

As yet, Jordan's economic expansion has not translated into job creation and higher employment opportunities for Jordanians. Of all the jobs created from 2009, about 42 per cent were in the private sector and most of these new jobs employed foreign workers.<sup>9</sup>

In 2008, the QIZs employed some 43,000 workers, out of which some 24 per cent were Jordanians.<sup>10</sup> The share of Jordanians working in the garment industry does not look much different today. In 2017, Jordanians account for barely 25 per cent of the sector's workforce.<sup>11</sup> Manufacturers often preferred to employ already skilled and, in some cases, experienced workers from foreign countries.

Jordan's unemployment rate has remained in the double digits for many years and labour force participation rates, especially among women, continues to be one of the lowest in the world.<sup>12</sup> Jordan's Department of Statis-

tics (DoS) reported a rate of approximately 15 per cent for female labour force participation in Jordan.<sup>13</sup>

Integrating Jordanians, especially women, into the garment industry has become a priority for the Jordanian government, particularly since 2010. With the agenda to complement industry growth with jobs for local women from more traditional and rural communities, the Jordanian government initiated and pioneered “satellite” production units.

### Satellite Units: Bringing jobs to Jordanian women

The garment manufacturing sector in Jordan had suffered from social stigma following large-scale exposés of human trafficking and sexual harassment. This is likely to have played a role in discouraging women to work in the factories, especially the Special Economic Zones (SEZs). Other factors such as transportation, mobility and pay structures are likely to have played a role in inhibiting Jordanian participation in the sector.

Together, the government and manufacturers decided to look beyond the SEZ model, which led to the inception of satellite production units. A satellite unit is a garment manufacturing factory, usually of smaller

scale, which is wholly owned and managed by existing garment manufacturers, but operating outside of their QIZ or SEZ geographical base. The model offered a decentralised approach to providing job opportunities. The first satellite unit was established in 2009.

The driving idea behind the satellite unit model is to bring job opportunities to Jordanian women in some of the country’s rural population centres. The government and the private sector also targeted areas with high female unemployment rates.

Simultaneously, the Government of Jordan required that at least 25 per cent of the entire company’s workforce be Jordanian. The employment of Jordanians was also tied to the work permit fees for migrant workers.<sup>14</sup>

The ambitious initiative was formally communicated in mid-2017 with the Prime Ministry issuing a letter outlining the incentives to establish and operate satellite factories.<sup>15</sup> The formal requirements included the enterprise to employ at least 30 per cent Jordanians by 2018 and 50 per cent by 2021.<sup>16</sup>

The Government of Jordan passed the decision in 2017 that there would be no increase in the work permit fees for the garment manufacturing sector as long as the applicant met the required quota.

Soon, operating satellite units became a popular apparatus for employers to maintain and to reach this required quota for Jordanians. It was easier for employers to recruit Jordanians for their satellite units rather than the main units in the SEZs. Since 2010, the number of satellite units in Jordan has increased substantially. Today, 16 operating satellite units are employing over 5,500 Jordanians across the country and many factories report having waiting lists of people ready to work.<sup>17</sup> Over 4,700 of these workers are women. Today, satellite units account for about 18 per cent of garment manufacturing factories in Jordan. The number of satellite factories is expected to reach 21 by the end of 2018, as many are currently under construction or are in the planning stage.

While the number of satellite garment factories has increased, the financial sustainability of these factories remains a concern. Even in 2016, most satellite units

### GOVERNMENT INCENTIVES TO ESTABLISH SATELLITE UNITS AND RECRUIT JORDANIANS.

In June 2017, the Government of Jordan announced a list of incentives to establish and operate satellite units. Incentives included:

- ◆ Rent exemption for three years
- ◆ Land for construction
- ◆ Salaries for Jordanian workers up to 50 per cent during the first year of employment (JD 110 / month)
- ◆ Subsidised transportation costs (JD 25)
- ◆ Social security contribution for individual workers (JD 25)
- ◆ Infrastructure services, including water and electricity.

were just breaking even or making losses. The root causes for this lack of profitability is yet to be identified. However, some speculated causes include the small size of the factories and a lack of investment from main units to build productive systems.

In the first few years, most employers did not see the satellite units as a profitable business model. It was commonly seen as a mechanism to meet the required quotas. Further, workers and communities generally perceived them as charities or government initiatives.<sup>18</sup>

The anticipated expansion of the garment industry is an opportunity for Jordan to prove that satellite units contribute to the industry's growth and create decent jobs. At the same time, the model can contribute to increasing employment opportunities for Jordanian women, especially in rural areas. However, to seize this opportunity and fully realize the potential of the satellite unit model it is critical to develop a comprehensive understanding of how satellite units are operating in practice and of the challenges they face.

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## Design and implementation

With these observations and challenges in mind, Better Work Jordan started a new project in 2017 to explore the dynamics of satellite units and to understand how this model could be made more sustainable for both employment and business.

With support from the World Bank Group and the International Finance Corporation (IFC), Better Work Jordan started implementing the project, "Enhancing the Productivity in Jordan's Satellite Garment Factories." Given the increasing number of satellite units and the model's potential to provide sustainable work opportunities to Jordanians, the project sought to understand the challenges faced by these factories and to explore ways to enhance productivity, through improvements in processes and better working conditions.<sup>19</sup>

### DESIGNING THE INTERVENTION

The primary objective of the 18-month project was to explore how productivity among satellite units could be increased. This was under the overall goal to help integrate Jordanian women into the garment manufacturing sector. The project was designed to allow Better Work Jordan to actively engage with the 16 participating factories and better understand the dynamics in these units.

With this goal in mind, the project first focused on understanding the dynamics and needs in the factories

through an assessment of training and productivity needs. Findings from this assessment then informed the design and implementation of capacity building interventions. As the project design took shape, an impact assessment to identify change attributable to the project was also planned.

### NEEDS ASSESSMENT

The training and productivity needs assessment covered two broad areas affecting lead times and costs: retention time in materials flow and manufacturing activities. Key observations included a lack of line balancing, inefficient motions and processes, a lack of standardised work practices and training deficiencies.

Observations from this assessment as well as the production setup in the factories informed the technical implementation and highlighted the gaps that could potentially be addressed through training workers and supervisors. Given the variation in production setups across factories, the intervention was adapted for individual satellite units.

The majority of participating factories are located in the northern part of Jordan, followed by the central and the southern regions. The project allowed Better Work Jordan to fully comprehend the variation among satellite units. For instance, the total number of workers in a factory ranged from some 100 workers to

## IMPLEMENTATION AND FUNDING.

Better Work Jordan and the IFC oversaw the implementation of the project.

The project was implemented by an international expert on productivity, who was hired as a consultant by Better Work Jordan, and by a team of four Jordanian Industrial Engineers, who were hired as part of the Better Work Jordan team. The Better Work Jordan team also delivered the non-technical training.

The project was funded through a grant from the Jobs Umbrella Trust Fund, which is supported by the Department for International Development/UK AID, and the Governments of Norway, Germany, Austria, the Austrian Development Agency, and the Swedish International Development Cooperation Agency.

almost 600 workers.

The majority of workers in satellite garment factories are women. The share of women ranged from some 82 to 100 per cent, with an average of 90 per cent.<sup>20</sup>

The majority of supervisors employed in the satellite factories, about 72 per cent, are Jordanians. Among the supervisors in the satellite factories, about 68 per cent are female. As a comparison, the industry average for female supervisors across Jordan is 44 per cent.<sup>21</sup>

The variation is also true for the production setup. Some factories were documented with only trimming operations, whereas others had nearly all production processes within the unit.

## IMPLEMENTATION

The intervention was implemented in 14 satellite factories and two subcontracting factories (see Annex II).<sup>22</sup> The project started with four factories in mid-2017 and was later expanded to the remaining 12 factories in January 2018.

Six technical training modules were developed based on findings from the training and productivity needs assessment conducted during the first months of the project. For some of the non-technical training

modules, existing Better Work Jordan materials were adapted (see Text Box 1).

The training modules, together, are meant to help factories implement a comprehensive approach to improving productivity. The technical training modules focused on process and productivity improvements, whereas the non-technical training focused on improving working conditions. Further, improved working conditions are commonly linked to higher productivity among workers and supervisors.<sup>23</sup>

Between January and June 2018, Better Work Jordan delivered 31 sessions on technical training to over 200 workers and 46 sessions on non-technical training to over 700 workers.

## DATA SOURCES

Better Work Jordan collected relevant performance data from the participating factories during the project, including baseline and endline data for absenteeism rates, production output, level of product quality and retention rates, among others.<sup>24</sup>

Better Work Jordan also commissioned and independent impact assessment of the project, which included a worker survey to study the impact of the intervention in eight satellite units. The data from the worker survey is limited to eight factories and does not cover all factories participating in the project. The factories in the worker survey sample are divided into four groups, where the first half received the intervention starting May 2017 and the second group starting in 2018. The workers surveyed were chosen randomly. The baseline data was collected in October 2017 and midline data between April and May 2018. Endline data were collected during the third quarter of 2018.

In addition, Better Work Jordan distributed a second survey among management representatives of the participating factories. The online, anonymous survey sought to gather manufacturer perspectives and build a more comprehensive understanding of perceived effects of the project. Thirteen respondents completed the survey.

Observations during the project implementation and



data from the monitoring indicators and surveys are utilised in the following section. The qualitative and quantitative information, together, is expected to shed light on the challenges, best practices and opportunities in these satellite garment factories.

### LIMITATIONS

The data and analysis summarized in this policy brief have limitations. The measurement of productivity could not be done as effectively as desired, given limitations in data availability and collection from factories.

Second, the sample size for the management survey is relatively small. Nevertheless, the responses provide a good understanding of factory management perceptions on establishing and operating satellite garment factories.

Lastly, the results summarized from impact assessment research are encouraging but lack definitive conclusions on effects attributable the training, due to limitations in data collection and uneven implementation of the intervention.

## TEXT BOX 1. SUMMARY OF TECHNICAL AND NON-TECHNICAL TRAINING MODULES

### TECHNICAL SKILLS

The **Supervisory Training** focuses on training production line supervisors focusing on enhancing sewing operators' performance, adapting work methods and maintaining cycle time while also focusing on quality assurance in a collaborative manner.

The **New Operators Training** adopted a training of trainer (ToT) approach to building factory capacity aimed at facilitating skills development of new operators. Participants are to be equipped to train new sewing operators.

An **Operations Awareness Campaign** adopts in-class training as well as hands-on implementation on the factory floor aimed at improving economic work methods, upskilling operators, enhancing product flow and cycle time and improving product quality. The training is implemented with a core group of operators.

The **5S Workplace Organization Training** module was developed to provide comprehensive training in optimising workplace organisation to promote efficiency.

The **Key Knowledge for Waste** module introduces different perspectives on cost, cycle time and types of waste to workers as well as supervisors.

**Quality Activity** training seeks to help factories evaluate variability in readings between quality control checks in order to help factories standardize product quality.

### SOFT SKILLS

The **Knowledge of Supply Chain** module was designed specifically for the project. It addressed a need for workers to better understand their role in the context of the global supply chain, especially the immense value of their work, and help create a respectful work environment. The training covers the entire production process, including raw material sourcing, button making, end consumers and constant communication throughout the chain.

**Introduction to Workplace Communication** aims to improve management and worker understanding of the importance of communication and to encourage them to adopt a dialogue-based approach to problem-solving.

The **Basic Rights and Responsibilities** module is designed to help workers develop a basic understanding of their commitments in the workplace and inform them about their legal rights.

The **Financial Literacy** module aims to help workers understand the importance of managing their finances and ways to better budget their income and savings.

Better Work's **Supervisory Skills Training (SST)** is one of its core training modules and has been documented to have a positive impact on factory floors across countries. The SST is a three-day course aimed at enabling supervisors and future supervisors to gain the necessary skills to further enhance dialogue between management and workers. Overall, the training is designed to develop supervisors' interpersonal, management and leadership skills and ultimately create a decent work environment.

## Observations, outcomes and research findings

Better Work Jordan's extensive engagement with the factories through the project allowed the team to: first, understand the subtleties among satellite units; and second, to identify some of the challenges, existing best practices and potential solutions to advancing the satellite unit model. This section utilises both qualitative and quantitative information documented throughout the project.

### OBSERVATIONS

#### Common challenges

The training and productivity needs assessment helped identify some of the overarching challenges among satellite factories.

Identified root causes of poor factory performance included a lack of organisation and systems to both monitor and drive production, an absence of standardised work practices, manufacturing instability, and inadequate investment in workforce development. Some factories also lacked sufficient support and oversight from the main unit.

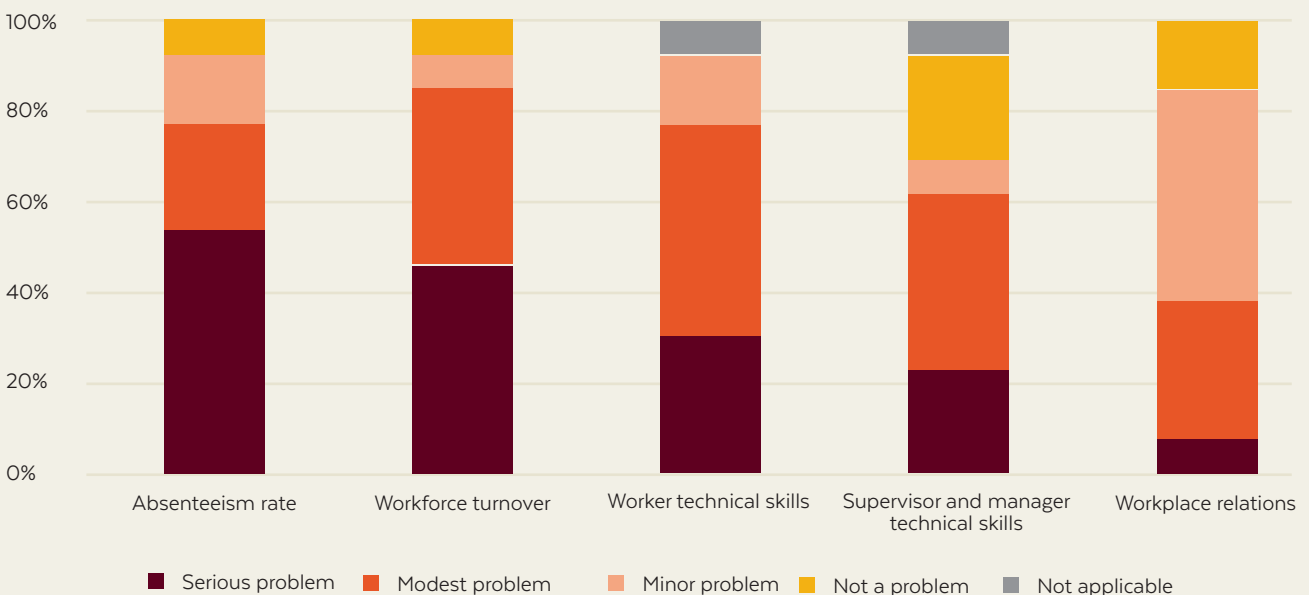
Although problems related to organisations and systems, as well as workforce development are present in many garment factories across the industry, they are more pronounced in satellite units. Unstable manufacturing and the lack of standardised work practices are more specific to the satellite units in Jordan's garment industry.

Without adequate investment in personnel, the factories often rely on one person to be in-charge of several supervisory and management tasks. For instance, two of the participating satellite factories employed only one person to manage all factory operations.

Overall, the majority of satellite units lack adequate management systems compared to the more established systems of the main units. The main units tend to have standardised work practices and engineers overseeing production processes. Compared to their main units, satellite factories lack adequate personnel to oversee specialised processes.

When asked about major obstacles faced when establishing satellite units in the management survey,

**FIGURE 1. MAJOR CHALLENGES IN FACTORY OPERATIONS REPORTED BY EMPLOYERS (N=13).**



about 62 per cent reported finding skilled supervisors as a serious problem and about 54 per cent reported finding skilled workers as a serious problem.

High worker absenteeism and turnover rates were noted as challenges in both Better Work Jordan's observations as well in the management survey. The majority of respondents ranked absenteeism rate, workforce turnover and technical skills of workers and supervisors as serious operational problems, as reported in Figure 1.

During informal conversations, workers noted that the language barrier with foreign supervisors often made their discussions and negotiations more difficult. Better Work Jordan observed that satellite factories with foreign supervisors or line managers experienced more strains in worker-supervisor relations. Further, the areas where these satellite units operate tend to be more conservative than Jordan's urban areas.

Although only about 15 per cent of management respondents reported their production facility as a serious or modest problem, many satellite units operate in buildings that are unsuitable for industrial manufacturing. This was clearly observed when Better Work Jordan tried to pilot layout changes in the factories.

When asked if productivity was a problem in their satellite units, about 15 per cent of the respondents reported it as "serious problem" and about 46 per cent reported it as a "modest problem." Some 54 per cent of the respondents reported profitability as a serious problem and 15 per cent reported it as a modest problem.

### Prevailing good practices

The ongoing engagement has allowed Better Work Jordan to identify some of the prevailing good practices among satellite units. Such practices range from factory-level initiatives to community outreach.

Among the 16 participating factories, only five had established incentive systems for workers. Having incentive systems for workers is expected to improve worker productivity as well as to discourage absenteeism. Examples of systems would include monthly or weekly production bonuses. Two of these factories have also established competitions, where a production line or an

individual would win monthly awards for high productivity. The average baseline absenteeism rate among this group of factories was 5.06 per cent, whereas the average for the remaining factories was 8.72 per cent. The same holds for the baseline average retention rate, which was about 96.7 per cent among the five factories with some sort of incentive or motivation systems and 94.5 per cent among the other group.

Some manufacturers are putting a high emphasis on recruiting Jordanian supervisors or managers in their satellite units. Employing Jordanian managers and supervisors, especially from the local area, allows factories to gain and maintain a level of trust with the local community.

As an initiative to address high turnover rates, one factory started inviting potential workers to factory tours. The tour now allows potential workers to see the work setup and environment and decide beforehand if they want to work in the garment factory or not.

## OUTCOMES

### Progress made

Table 3 in Annex I shows the progress with some of the performance indicators. As many factors have influenced the changes, no direct causations can be claimed.

All indicators show different levels of progress among the satellite factories. The average absenteeism rate decreased by 0.96 percentage points and the average retention rate dropped by 2 percentage points. Factories with incentive systems had some of the highest worker retention rates among the satellite units. The average absenteeism rate among factories with incentive systems was 4.83 per cent, whereas the average factories with no incentive systems was 7.43 per cent.

The average production output, computed as the average pieces produced per day, increased by almost 30 per cent over the analysis period. However, given the wide array of products and production systems among the factories, drawing firm conclusions from this average should be approached with caution.

Among the 16 factories, the average production output per day increased in 11 factories, remained unchanged in one factory and decreased in four factories. Two factories observed an increase in average production output by over 100 per cent. During the course of the project, both factories had added new machines and production lines to increase their satellite unit's capacity.

The average quality level of products, computed as the percentage of products that pass through quality assurance per day, also increased over the six months. The average level of quality was 85.62 per cent in the baseline and 91.67 per cent in the endline. The data was computed from 13 factories only as three satellite units still do not have any quality assurance systems.

When comparing the baseline and midline, more workers reported receiving quality and productivity bonuses. The share of workers saying they received some quality bonus increased from 19 per cent to 28 per cent and the share of workers reporting a productivity bonus increased from 23 per cent to 30 per cent.

Further, the number of workers reporting being late for work for any reason decreased from 73 per cent to about 70 per cent.

Surveys implemented in a subset of participating factories ask workers about their perception of factory conditions, providing a unique vantage point for measuring progress. These surveys cover a wide range of issues, including worker-supervisor relations and sensitive yet commonly documented problems in the garment industry, such as verbal or physical workplace harassment. Analysis of baseline and midline data from surveys points to improvement in such areas. For example, when asked if, or how often workers are subject to physical abuse, workers at midline were reporting these concerns with less frequency.<sup>25</sup> This suggests some level of progress in improving worker-supervisor relations over the project's course.

### Ongoing challenges

Although the project has seen some progress, a lot remains to be done. The project initially envisioned piloting changes in production lines, but such intervention could

## MORE FACTORIES INVESTING IN SATELLITE UNITS.

This trend was evident in some of the changes observed during the project implementation. Some examples include:

- ◆ One factory invested in new and automated machines, helping the satellite unit increase its output. The same factory started implementing a performance monitoring system upon Better Work Jordan's recommendation.
- ◆ After observing communication problems between workers and the satellite unit manager, one factory hired a Jordanian production manager to focus more on production and to act as an intermediary between workers and the foreign general manager.

not be conducted as planned. Indeed, most factories had inflexible physical setups, which made it nearly impossible to implement the necessary changes.<sup>26</sup> Instead, the intervention had to be adapted to accommodate requirements from satellite units, and the project increased its focus on "capacity building" and training, as a means to improve productivity and working conditions. Such rigidities impacted the outcomes of this project. Going forward, it is important that factories are receptive and able to implement changes in production lines. This will help amplify any progress made, especially in terms of production, productivity and quality.

## FINDINGS FROM IMPACT RESEARCH

In addition to monitoring project outcomes, Better Work Jordan partnered with independent researchers to conduct an impact assessment of the satellite factory productivity intervention.<sup>27</sup> Using quantitative data gathered in confidential surveys from workers and managers over three time periods of the project's implementation, researchers sought to assess and attribute impact of the project on productivity, including contributing factors such as attendance and turnover. The research also aimed to identify effects on worker wellbeing, interpersonal relations in the factory, and worker promotion rates, among other outcomes.

The research results suggest that the satellite productivity intervention positively influenced productivity, driven by a holistic package of soft-skills training modules and certain technical skills training.

Worker efficiency increased, for example, as a result of technical trainings on waste management and quality. However, such results were not consistent across all training modules, and some technical training modules had the opposite of desired effects on this measure. For example, the introduction of certain technical skills training was associated with higher production targets being set and in some cases with more unbalanced production lines, which could reflect higher workloads without similarly higher efficiency levels.

Absenteeism and turnover rates can affect overall productivity. Similarly to efficiency rates, results from impact assessment research show mixed results of the intervention in satellite factories. Workplace communication and technical supervisor training tended to lower the turnover intention reported by workers. Results regarding absenteeism were inconclusive, although some evidence suggested more communication between workers and managers on planned absences was occurring after the training.

Interpersonal and workplace relationships can be affected by the introduction of productivity training in factories. Again evidence from the impact research was mixed: while some workers reported feeling more empowered

in interactions with supervisors, several training modules were correlated with greater workplace tension and conflict once implemented, perhaps stemming from greater production pressures. Such results suggest the need for carefully considered and monitored implementation of productivity interventions.

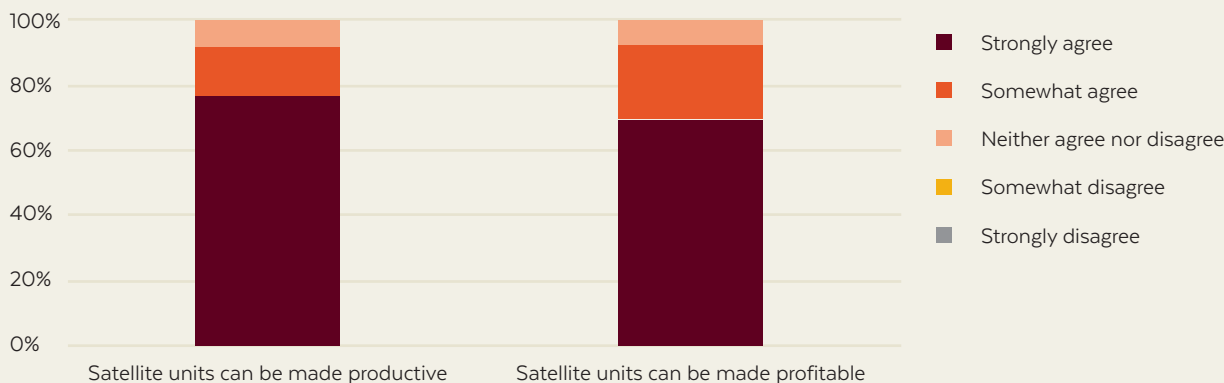
The impact assessment research has limitations. Resistance to full implementation of the productivity intervention prevented definitive identification of treatment effects by complicating the process of random assignment to the treatment intervention. The research also primarily focuses on exposure to training, rather than by measuring the individual uptake of skills or learning by individual training participants.

**EXPANDING SUPPORT**

The number of satellite units has increased in the past few years, and is expected to increase further. When asked if the factory was planning to open a new satellite unit, about 38 per cent of managers responded yes and 31 per cent responded maybe.

For both the already operating and new factories, it is important to promote the idea that the satellite unit model has the potential to be productive and can be a decentralised source of work for Jordanian women. As shown in Figure 2, there is already a high degree of optimism among management that satellite units can be made productive and profitable.

**FIGURE 2. FACTORY PERCEPTION OF SATELLITE UNITS (N=13).**



In order to understand what type of support factories wanted from national and international stakeholders for their satellite units, the majority reported vocational training in rural areas and technical support to improve production efficiency.

When asked what kind of support the factories wanted from Better Work Jordan, some of the commonly reported needs included technical support to improve production lines, technical training for workers and supervisors, and training on HR management.

## Moving forward

The expansion of financially sustainable satellite garment factories can create decent job opportunities across Jordan, especially for women in rural areas.

It is now important that the industry, and public-private partnerships, work to take the satellite garment model to the next stage. In order for the expansion of Jordan's garment industry to translate into a sustainable source of employment for Jordanians there needs to be substantial investment and innovation.

The Better Work Jordan project has helped observe the dynamics of satellite units. Based on these observations as well as findings from the surveys, Better Work Jordan recommends the following to advance jobs in satellite garment units:

### WORKFORCE DEVELOPMENT AND INVESTMENT

**Developing a local workforce.** Prior to setting up satellite garment units in rural areas, potential garment workers should pass through vocational training or traineeships that would not only develop their technical skills but also help them adjust to working in manufacturing factories. This experience will also help reduce training time in factories once the worker is employed. Factories can also establish workplace tours for potential workers to ensure employment expectations are managed adequately.

**Training for new workers.** Factories should implement induction training for new workers to ensure that they are well adjusted to the workplace. This can be done through a combination of technical and non-technical training. Further, giving workers a sense of how their work fits in the global supply chain can aid in shifting

the perception of satellite factories from charity projects to actual businesses. Such training can help address challenges related to absenteeism and retention rates.

**Implementing motivation systems.** Setting up motivation systems, such as productivity and attendance bonuses, can help lower the absenteeism rate and improve productivity. Better Work Jordan has observed overall lower absenteeism rates in satellite units that implement some type of motivation system.

**Enabling career progression.** At the enterprise-level, factories can encourage career progression for skilled workers. Satellite units already have an impressive average percentage of female supervisors. Better Work Jordan has a training programme for "future supervisors training," which can be adjusted for the satellite unit context. More women can also be trained and encouraged to take managerial positions in the satellite units.

**Training for supervisors.** As observed by Better Work Jordan and reported by factories, there is a need to provide both technical and non-technical training for supervisors. Training modules such as Better Work's Supervisory Skills Training and technical Supervisor Training can help equip supervisors with the necessary technical and soft skills to further improve their factory's productivity.

**Recruiting local graduates.** There are many highly educated Jordanians who can be employed in different departments in satellite units. Such positions can include industrial engineers, HR managers and welfare officers. This will not only help address Jordanian unemployment but also make factories invest in building robust teams to help design and maintain internal management systems.

## INVESTING IN PLANNING AND SYSTEMS

**Planning.** There remains scope to increase sufficient planning prior to setting up production lines and recruiting workers. Infrastructure limitations hinder how the factories can optimize their production and experiment with different production systems, such as lean manufacturing. New satellite units benefit from adequate prior planning.

**Improving production systems.** In the management survey, factories have expressed the need for more technical assistance to improve production systems. To address this need, the government and factories can encourage the use of industrial engineering when setting up satellite units, and employ on-site production engineers. When allocating buildings for satellite units, the government can further consult industrial engineers to assess how the building may impact the factory set-up and consequently, factory operations. National institutions, such as the Jordan Chamber of Industry, can play an important role in facilitating this technical assistance, especially through coordinating government and private efforts in skills development and job-matching.

**Implementing management systems.** There remains scope within factories to implement standardised work and management systems. In the short-term, this can be done via external consulting through relevant programmes. In the long-term, there is potential to build capacity among graduates to implement such systems.

**Investing in HR management.** Factories should set up appropriate HR systems for the selection of new workers and help workers advance in the workplace. Having an established HR management system can also help improve grievance mechanisms and improve communication between workers, supervisors and managers.

**Workplace communication.** Ensuring effective workplace communication is essential for harmonious labour-management relations. Better Work Jordan observed that there were fewer problems in satellite units where the supervisors or managers were more familiar with the local area.

## COMMUNITY ENGAGEMENT

**Community outreach.** Community approval and cooperation is essential to establishing and operating satellite units in rural areas. The majority of areas where satellite units operate have been historically agriculture-based. While many satellite units have made efforts to establish good relations with the communities around them, there remains scope to develop community engagement models. Such initiatives can be integrated into the planning for new satellite units. This will not only help build trust but also shift the mind-set regarding satellite units as mere governmental projects to seeing them as actual businesses and quality employers. Such initiatives can be done in collaboration between factories and many of the non-governmental organisations that work in Jordan's rural areas.

## Annexes

### ANNEX I. TABLES

**TABLE 1. WORKFORCE CHARACTERISTICS IN SATELLITE FACTORIES (N=16).**

|             |             | AVG. | MIN  | MAX |
|-------------|-------------|------|------|-----|
| Workers     | Total       | 340  | 105  | 668 |
|             | % female    | 90.4 | 78.2 | 100 |
| Supervisors | Total       | 15   | 2    | 35  |
|             | % female    | 68   | 29   | 100 |
|             | % Jordanian | 72   | 24   | 100 |

**TABLE 2. TRAINING DELIVERED TO SATELLITE FACTORIES (N=16).**

| TRAINING    | NO. OF SESSIONS | NO. OF PARTICIPANTS | % FEMALE |
|-------------|-----------------|---------------------|----------|
| Technical   | 31              | 219                 | 96       |
| Soft skills | 46              | 749                 | 97       |
| Total       | 77              | 968                 | 97       |

**TABLE 3. KEY PERFORMANCE INDICATORS (N=16).**

| INDICATOR               | BASELINE (JAN 2018) |      |       | JUNE 2018 |       |        | CHANGE IN MEAN |
|-------------------------|---------------------|------|-------|-----------|-------|--------|----------------|
|                         | MEAN                | MIN. | MAX.  | MEAN      | MIN.  | MAX.   |                |
| Absenteeism rate        | 7.58                | 0.98 | 20.33 | 6.62      | 1.65  | 16     | -0.96          |
| Retention rate          | 94.47               | 73.4 | 99.4  | 96.47     | 94    | 99.95  | 2              |
| Avg. production output* | 3,007               | 400  | 8,353 | 3,718.94  | 437   | 14,343 | 29.78          |
| Level of quality**      | 85.62               | 35   | 99.2  | 91.67     | 82.13 | 99.98  | 6.05           |

\*Avg. production output is calculated as number of pieces produced per day.

\*\* Level of quality is calculated as the percentage of products that pass through quality check per day. Based on 13 factories.



**ANNEX II. LIST OF PARTICIPATING FACTORIES**

1. Ajloon Satellite Unit (Hi-Tech Apparels Concept)
2. Al Areen Wear Ltd.
3. Al Hanan for Cloth Mfg. Est.
4. Al Mustamerah for Tex
5. Al Tafilah Apparel Co. Ltd.
6. Aseel Universal Garments Mfg. Co./Al Mwaqar
7. Classic Fashion Apparel Industry Ltd. Co. (Bus-sairah)
8. Classic Fashion Apparel Industry Ltd. Co. (Karak)
9. Classic Fashion Apparel Industry Ltd. Co. (Ebeen)
10. EAM Maliban Textiles Jordan (PVT) Ltd. (Satellite)
11. Galaxy Apparel Industry (Satellite)
12. Ivory Garments Factory L.L.C. (Satellite)
13. Standard Jeans Apparel Mfg. Co. (Satellite Unit 2)
14. Sterling Apparel Mfg. L.L.C. (Satellite)
15. Tusker Apparel Co. Ltd. (Satellite)
16. United Creations L.L.C. (Satellite)

## END NOTES

- 1 Jordan Department of Statistics (2018). Retrieved from: <http://dosweb.dos.gov.jo/>.
- 2 Toppa, S. (2017, Jan. 5). 'Photo Essay: Migrant Workers in Jordan's Garment Industry.' Carnegie Endowment for International Peace. Retrieved from: <http://carnegieendowment.org/sada/66598>.
- 3 Azmeh, S. and Nadvi, K. (2013). 'Greater Chinese' Global Production Networks in the Middle East: The Rise of the Jordanian Garment Industry. *Development and Change*. DOI: 10.1111/dech.12065.
- 4 Ibid.
- 5 Ibid.
- 6 Data collected from Jordan's Ministry of Labour in January 2018.
- 7 For more information, see: [https://www.ilo.org/beirut/media-centre/news/WCMS\\_531596/lang--en/index.htm](https://www.ilo.org/beirut/media-centre/news/WCMS_531596/lang--en/index.htm).
- 8 In July 2016, the EU and Jordan agreed to simplify rules of origin (RoO) and facilitate Jordanian trade with the EU. The agreement is part of EU's efforts to support the development of the private sector, encourage investment and create jobs both for Jordanians and Syrian refugees. The scheme applies for 10 years and covers a wide range of manufactured products in 52 chapters of the Harmonised System. For exporters to be able to benefit from simplified RoO, production must take place in one of the 18 specified Special Economic Zones in Jordan, and the production must involve a minimum percentage of Syrian labour in the production facilities (initially 15 percent for the first two years and increasing to 25 percent in year three). For more information, see: <http://ec.europa.eu/trade/policy/countries-and-regions/countries/jordan/>.
- 9 Jordan National Employment Strategy 2011-2020.
- 10 EVET Council, 2009.
- 11 The majority of workers in the sector are economic migrants from South and Southeast Asia. Women make up for some 70 percent of the industry.
- 12 The National Employment Strategy (NES) 2011-2020 was developed to address this challenge. Retrieved from [https://www.ilo.org/dyn/youthpol/en/equest.fileutils.dohandle?p\\_uploaded\\_file\\_id=171](https://www.ilo.org/dyn/youthpol/en/equest.fileutils.dohandle?p_uploaded_file_id=171)
- 13 Retrieved from [http://dos.gov.jo/dos\\_home\\_e/main/archive/Unemp/2018/Emp\\_Q1\\_2018.pdf](http://dos.gov.jo/dos_home_e/main/archive/Unemp/2018/Emp_Q1_2018.pdf)
- 14 Letter from the Prime Minister to the Minister of Labour dated 14 February 2017. Ref: 18/11/1/5777. In early 2017, the Government of Jordan raised the work permit fees for employers bringing foreign workers to Jordan. The government agreed to maintain the fee at JD 275 for the garment sector as long as the enterprise employed the required percentage of Jordanians.
- 15 Letter from the Prime Minister to the Minister of Labour dated 18 June 2017. Ref: 18/11/29009.
- 16 Letter in April subsequent decision for manufacturers to maintain the 25 percent quota and for the employer to recruit at least one Jordanian to bring in two migrant workers in the country.
- 17 Data collected from factories participating in Better Work Jordan in July 2018.
- 18 Better Work Jordan worked with the University of Jordan in late 2016 to conduct focus group discussions with Jordanian women in satellite garment factories. The information was gathered during the focus group discussions.
- 19 The project recognizes that there are several factors that may contribute to the financial sustainability of factories, but has chosen to focus on productivity, by addressing processes and working conditions, given that these are areas of expertise of the IFC and the ILO.
- 20 Based on data collected from participating factories and Better Work Jordan's assessment reports. The industry average is about 72 per cent.
- 21 Collected from Better Work Jordan records.
- 22 The two subcontracting factories were added to replace two satellite units that dropped out from the project.
- 23 Evidence correlating working conditions and productivity can be found in Tufts University's independent impact assessment report on Better Work. For more information, see: <https://betterwork.org/blog/portfolio/impact-assessment/>
- 24 The data for the factory performance are either reported by the participating factories or have been computed using raw data provided by them. Ideally, the data would have been collected over several months for all factories. Due to constraints in many factories, data was only collected for selected months only, including the baseline and endline months. The baseline and endline performance data presented here are averages from two months (January and June).
- 25 The data was drawn from the survey question: "How often do supervisors or managers hit workers or try to physically hurt them?" At the time of midline data collection, in four factories fewer workers were reporting "often" or "always" in response to this question, relative to the baseline. In two factories, no workers reported such concerns in both the baseline and the midline data.
- 26 Information collected from the project's first Progress Report.
- 27 The independent impact assessment study of the satellite productivity intervention can be found from the Tufts University Labor Lab: "Training, productivity, and working conditions in Jordan's satellite apparel factories" (Kerstien, et al, 2019). [sites.tufts.edu/laborlab](https://sites.tufts.edu/laborlab).

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