

## »» DEG evaluation results



### Bridging the skills gaps in Bangladesh

JMS Holdings Ltd. – A garment manufacturer boosts its productivity through workforce development

This case study is part of a larger study on skills gaps: *“Bridging the skills gaps in developing countries – A practical guide for private-sector companies”*. For more information, please refer to DEG’s website: [www.deginvest.de](http://www.deginvest.de) under the header “what is our impact”.

This report is a result of DEG's evaluation work regarding development effectiveness. DEG's monitoring and evaluating team checks at regular intervals whether the transactions it co-finances help to achieve sustainable development successes and points to ways of making further improvements for DEG and its customers. To ensure the independence of evaluation results, external consultants support the work of the team.

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We sincerely thank JMS Holdings Ltd. for the great cooperation while conducting this study.

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# JMS Holdings Ltd.

## A Bangladeshi garment manufacturer boosts its productivity through workforce development

### Executive summary

Chittagong-based JMS Holdings Ltd. (hereafter JMS) is one of Bangladesh's leading manufacturers of ready-made garments. It comprises three garment-producing companies in the low-to-medium-price segment. As JMS was regularly producing at the limits of its capacity, it embarked on an ambitious expansion and optimization project in 2012 in order to increase its production capacity and competitiveness.

Given the limited availability of formal training and qualifications in industrial engineering and production techniques for the textile sector in Bangladesh, the company's particular challenge for its expansion project is a skills gap in production mid-management, i.e. line supervisors and line chiefs. Line supervisors and chiefs require a deep understanding of modern production layout and techniques, and a technical understanding of the different cutting-edge machines, as well as strong leadership and communication skills. At the level of machine operators, JMS can easily recruit a sufficiently large number of workers, but they must be trained internally to fulfill the efficiency requirements and to comply with health and safety standards.

In order to address the gaps, JMS has introduced three main initiatives to support the skills development of its current and prospective workforce. In cooperation with the textile consulting company Gherzi, JMS set about organizing training courses for productivity as an integral part of a comprehensive program of production optimization. In this context, JMS introduced a separate training station for providing practical training for new hires and refresher courses for established staff without hampering the actual production process. In addition, JMS offers practical training at the training station as part of a three-month technical-vocational-education-and-training (TVET) course for sewing-machine operators, in cooperation with the established local Chittagong Mohila Polytechnic Institute (CMPI). On completion of the 21-day training course at JMS, students can join JMS's production line directly, thereby providing the company with adequately qualified operators that have a higher efficiency than other recruits. In addition to its workforce development, JMS also fosters skills development among its local fabric suppliers by training them in quality improvements as well as health and safety measures. Moreover, in order to give something back to the local community, JMS also

finances a pre-primary school in Chittagong, as well as a school and a college on the island of Hatiya.

JMS's workforce development has led to a substantial increase in productivity and quality. And thanks to the training manuals and the establishment of the separate training station, further improvements are likely to take place in the future through continuous skills development. For employees, the initiatives also proved to be highly beneficial in leading to higher wages by virtue of higher efficiency. The community benefits as well: directly through the provision of education for local children, and indirectly through the availability of more and better jobs – the majority of which are for women – and through the increased employability of young women from local villages via the TVET course, with substantial secondary benefits on family income, health and education.

The key success factors behind JMS's initiatives are its partnership with international experts and an established school, and its management, which embraces change. A number of good practices from JMS can provide guidance for other companies; namely, the introduction of a separate training station (good practice 4.4 in the good-practice framework for workforce development described in Chapter 2.1), the linking of wage increases to productivity (5.2), the improvement of working conditions (5.4), and the investment in non-financial benefits (5.4), such as the free provision of health products.

### 1. Company background

Family-owned JMS Holdings Ltd., established in 2007, is one of Bangladesh's leading garment manufacturers, originating as the consolidation of five garment-producing companies, the first of which was founded in 1994. With its headquarters in the Central Economic Processing Zone in Chittagong, JMS now encompasses three garment-producing companies (one of which also engages in garment washing) – the other two companies were closed by the owner following safety concerns. JMS produces ready-made garments (RMGs) for export to North America and Europe – primarily in the low-to-medium-price segment, though it has also been able to supply to high-quality brands. The main clients include international retail chains and warehouses. The holding company employs more than 6,300 workers, the large majority of whom (70%) are women.<sup>1</sup>

[All notes at the end of this chapter \(Page 13\)](#)

As the group was regularly manufacturing at the limits of its capacity, it has since 2012 invested heavily in new machinery, in the renovation and construction of a new garment and washing facility, and in training. Its expansion was partially financed through a long-term loan from DEG. In 2014, the group exported more than 21 million pieces of clothing, and had a turnover of USD 78 million.<sup>3</sup>

## **2. Workforce challenges faced by RMG businesses in Bangladesh**

Since the 1980s, the RMG industry in Bangladesh has experienced rapid growth. With the Chinese RMG industry in decline, Bangladesh has emerged as a rapidly growing global producer of garments. Owing to low wages and high workforce availability, RMG-export levels in Bangladesh have grown steadily over the past ten years – with average annual growth rates above 15% – and many leading international retailers from Europe and the US have relocated their sourcing bases to Bangladesh.<sup>3</sup> In 2013-2014, RMG exports amounted to USD 24.5 billion and accounted for 80% of the nation's export earnings. Some 4.2 million out of Bangladesh's total workforce of about 80 million are employed in the RMG industry.<sup>4</sup> About 80% of these workers are women.<sup>5</sup>

Bangladesh's garment sector used to be infamous for low wages, unsafe working conditions, and long working hours of 12-14 hours per day, owing to poor workplace-safety regulations and inadequate factory inspections. However, international pressure to improve working conditions intensified following the collapse of the Rana Plaza building in April 2013, and in December 2013 the government duly lifted the minimum wage in the garment industry by 77%, from USD 38 to USD 68 (BDT 5,300) per month.<sup>6</sup> In addition, the Accord on Fire and Building Safety in Bangladesh was signed that year by more than 200 apparel brands, retailers and importers from over 20 countries, by two global and eight Bangladeshi trade unions, and by four NGOs. The Accord aims to improve workers' safety and anti-fire and safe-building measures by means of independent factory inspections, with full transparency about results and corrective action plans, as well as a worker-participation program providing training on fire precautions and operational health and safety.<sup>7</sup>

In consequence, Bangladeshi RMG manufacturers see their margins under pressure: the large international buyers use their bargaining power to keep prices low, and at the same time (minimum) wages rise, tougher regulation on health and safety is introduced, and investment has to be made in further fire- and building-safety measures.<sup>8</sup> In order to remain globally competitive, RMG manufacturers in Bangladesh need to invest in the skills development of their workforce in order to significantly increase productivity.

In addition to employing unskilled and poorly educated personnel at low wages who are trained on the job, manufacturers are increasingly looking for higher-skilled workers and professionals to increase the productivity of their production processes.<sup>9</sup> In light of the challenges in recruiting and retaining skilled personnel in the RMG industry, various initiatives have been launched to improve the quality and availability of training institutions.<sup>10</sup> However, TVET facilities in Bangladesh often suffer from poor quality, inefficiency, and a lack of resources.<sup>11</sup> Moreover, there are only very few dedicated training programs for garment workers at higher skill levels. Given the poor public education and limited vocational industry-specific training, it is all the more important to involve the private sector in fostering skills development.

## **3. JMS's skills gaps: Lack of adequately qualified production supervisors and line chiefs**

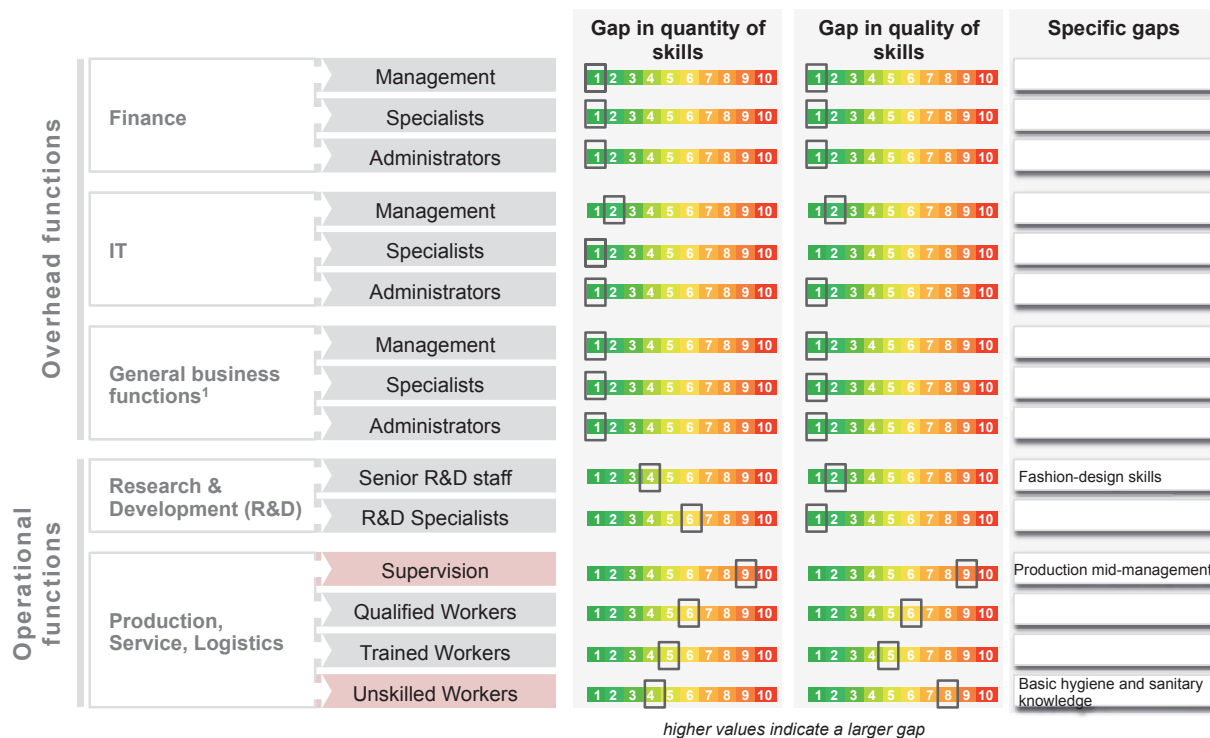
JMS has (internationally) trained administrative staff in sufficient numbers and of good quality; where JMS faces skills gaps is on the production side and among its suppliers. Figure 1 provides an overview of JMS's internal skills gaps. Four particular skills-gap challenges can be identified:

### **Production: Line supervisors and chiefs lacking essential skills to boost productivity**

There is great competitive pressure to increase productivity, and that, in turn, requires a comprehensive restructuring of production processes. For JMS, the widest skills gap is in production mid-management, i.e. line supervisors and line chiefs. As there is no dedicated training institute in the country for the relevant technical skills, the line supervisors and line chiefs often have an inadequate understanding of industrial engineering and modern production layout and techniques. Given the increasingly sophisticated machines that are used for achieving greater automation and higher productivity, supervisors also need a good technical understanding of the different specialized machines. So they require special on-the-job training. In terms of soft skills, JMS has also identified some deficits in leadership and communication skills among its production mid-management.

Regarding unskilled machine operators (i.e. seamstresses), JMS has a sufficient supply of women available from the poorer villages in the North who can be recruited directly at the factory gate. (In Chittagong, a generally higher wage level prevails, so local women are less attracted to working in the garment sector.) These women need to be trained on the job to reach adequate levels of quality and efficiency. Moreover, they often lack a proper understanding of health and safety issues, even though JMS requires a minimum level of eight years of schooling.

Figure 1: Assessment of JMS's skills gaps



1. Human Resources, Marketing and Sales, Communications etc.

### Retention: Losing workers who return to their home villages and marry

Attrition is close to 3% per month, mainly for two reasons. First, a high proportion of employees are migrant workers from other parts of the country, who are likely to return to their home region. Second, a high share of the employees are women, who often stop working once they are married and have children. This 3% rate is actually well below the average of 4.7% in a sample of 41 Bangladeshi factories that were trained by the NGO Impactt, but JMS still strives to reduce attrition in its own workforce.<sup>12</sup>

### Research and Development: Lacking the design skills to offer more original designs

Looking forward, JMS aims to offer more of its own designs to clients from the fashion industry. For this reason, it plans to set up a design team that understands the international fashion market and can absorb the latest trends. JMS had difficulties in finding these special skills in Bangladesh, so it hired an experienced Indian designer to build up its design team.

### Suppliers: Lacking knowledge to compete with Chinese imports

Lacking own spinning facilities, JMS has to source all of its fabrics externally. JMS requires fabrics of a very high quality for its renowned clients. To minimize lead times, the company would like to source from local suppliers, but they cannot guarantee the constantly high quality-level demanded by JMS. Currently, Bangladeshi production of fabrics is disadvantaged by lower-quality equipment and processes, lower productivity, poorer quality of fabrics (mainly because of foreign yarn elements and irregular shading of fabric pieces) and unreliable timeliness of supply. So local suppliers cannot yet compete with Chinese production, and JMS buys 90% of its fabrics from China. According to JMS's merchandising manager, most local suppliers lack sufficient knowledge of quality requirements, modern production techniques and recipes to guarantee a constantly high product quality. Skills development of these suppliers is crucial, in order to increase their competitiveness.

Figure 3: Overview of JMS’s initiatives to bridge its skills gaps

Type of initiative	Initiative	Main purpose
A <i>Workforce development</i>	A.1 Training for productivity	Increase the productivity of production through training, new production layout, and new machinery
	A.2 Training station for on-boarding and continuous training	Ensure an adequate efficiency level before integrating new operators into the production line
	A.3 TVET for sewing-machine operators	Provide technical and vocational training to enable young women to work for JMS as sewing-machine operators
B <i>Value-chain development</i>	B.1 Supporting Bangladeshi fabrics production	Promote the local production of fabrics
C <i>Community development</i>	C.1 Early childhood education and local schools	Provide early childhood education and schooling (incl. scholarships) to disadvantaged children in Chittagong and on Hatiya Island

#### 4. Addressing JMS’s skills gaps

To tackle its skills gaps, JMS has implemented a number of initiatives on all three levels – within the company’s own current and prospective workforce, with suppliers, and within the local community (see Figure 2).

##### 4.1 JMS’s workforce development: Laying the foundations for productivity increases

For JMS, the quality of its workforce is essential for competitively producing high-quality goods for its renowned clients in North America and in Europe. JMS has therefore introduced three initiatives to foster the skills development of its current and prospective workforce.

##### “Training for productivity”: Radically transforming production with the help of outside consultants

From 2012 to mid-2014, Gherzi consultants radically transformed operations at JMS by introducing specialization in pre-production and production, changing the production layout – for instance, by removing tables between production lines to create space for processed goods – and by introducing new machines to increase automation. In addition to these changes in operations, the collaboration with Gherzi involved extensive training courses covering the entire workforce. With the help of job descriptions detailing the skill requirements for each position, and a standardized IQ test for all staff from machine operators to the managing director, the employees’ aptitude for their current position was assessed. Dedicated training modules were then provided as appropriate, based on an elaborate training manual: the modules involved 30 days of theoretical training

for pre-production management and seven days for production management (line chiefs and supervisors), followed by a six-month and three-month on-the-job training program respectively. Additionally, all sewing operators and workers were trained on the job and at a separate training station. From the ranks of pre-production and production management, more than 100 employees received training relevant to their specific departments; and eventually all production workers, too, received theoretical and practical training. To sustain the training initiative, one Romanian Gherzi consultant with long experience in the international garments sector was hired as plant manager. That hiring has enabled JMS to provide training to new employees and to offer refresher training courses internally.

##### Facilitating on-boarding and ongoing training through a separate training station

One result of the collaboration with Gherzi was the introduction of a dedicated training station, including a training production line and a dedicated station for dexterity training. Based on standardized curricula and tests, the training line makes it possible to train new hires as well as existing staff in new production techniques, without hampering the normal production process. New hires just have to pass a basic assessment that checks their visual abilities and to show a basic understanding of patterns and demonstrate their literacy, but no prior knowledge of sewing is required. During a 21-day course combining theoretical and mostly practical exercises – such as basic dexterity training, general sewing-machine techniques, and paper and fabric skills – trainees reach the requisite efficiency level to be integrated into the production lines. The training station also enables refresher training courses if supervisors identify issues in production. Apart from the RMG-specific knowledge, new hires receive fire training and safety training, and are taught basic hygiene and sanitary standards.



TVET students at the training station

### TVET to recruit new workers from local villages

Over several years, JMS has offered internships to female students engaged in the four-year diploma program in textile engineering at the Chittagong Mohila Polytechnic Institute (CMPI). Building on that good relationship, JMS decided in February 2013 to launch a TVET program for RMG sewing-machine operators. The competence-based training program was developed together with the International Labour Organization (ILO) TVET reform project and the Directorate of Technical Education; it consists of two months of theoretical and practical training in the CMPI workshops, followed by one month of training at JMS's training station. The candidates for the training program are recruited by means of marketing in the local area, including advertisements and street marketing, which favors group recruitment of many women from the same village. The program is open to women above the age of 18 (to prevent child labor) and above grade eight – many of whom would not otherwise have thought of working in the formal sector or for JMS. During open-doors days at the school and via personal interviews, their aptitude for the program is tested.



Sewing workshop in the CMPI

### 4.2 Skills development along the value chain: Making fabrics from Bangladesh competitive on the world market

For the sake of superior quality and low prices, JMS is sourcing most of its fabrics from China. However, in an effort to buy as much as possible from the local economy, JMS has started to purchase fabrics from local suppliers. Today, these local purchases account for about 10% of the fabrics bought by JMS. Overall, about 15% of all JMS supplies are produced in Bangladesh, including packaging material such as plastic bags and cardboard boxes. JMS supports the development of its suppliers through skills transfer: the purchasers invite pre-selected suppliers to the JMS production site, and explain to them the quality requirements of JMS's clients and the quality-testing procedures. Once delivery has begun, JMS continuously interacts with the suppliers if the fabric falls short of the necessary quality standards; and it offers them solutions to fix the underlying problems, such as changing the recipe or improving the water quality in the coloring process. The purchasers also regularly visit the suppliers' production facilities to provide support. Apart from transfer of know-how, JMS supports its local suppliers financially by paying invoices right away and sometimes even in advance of delivery. In addition, JMS conducts regular audits of its suppliers to ensure compliance with safety standards and CSR expectations, suggesting specific corrective actions and deadlines for implementation, monitoring progress, and providing training sessions on health and safety and environmental concerns.

### 4.3 Closing skills gaps in the broader community: Giving back to society

Wishing to give something back to society, JMS's founder supports education in the local community of Chittagong and close to his home on Hatiya Island, 65 kilometers (40 miles) off the coast of Chittagong. In Chittagong, the company fully finances the running costs of the JMS Pre-Primary School, which provides initial education to 26 students aged 4-6. Although preference is given to the children of JMS employees, the school is open to the community in general. On the island, JMS has built and co-finances the operation of the Hatiya Public Welfare Trust School, which offers grade 6-10 classes for nearly 1,000 students in two locations. In addition, JMS supports the Hatiya Community College – the first and only secondary education institution on the island – by covering part of the running costs. The college is for grades 11 and 12. It currently has more than 200 students, and plans to increase its capacity by another 100 in the near future. Finally, JMS also sponsors 15 scholarships for poor and talented students in grade 7, who are selected via an island-wide competition.<sup>13</sup> The students receive a monthly payment of BDT 500 (USD 6.50) as pocket money and to pay for additional private tuition.

## 5. The role of DFIs: DEG encouraged JMS to go beyond minimum standards

DEG has played an important role in the company’s transformation process by providing long-term financing at substantially lower rates than the 14% annual interest on local (currency) loans with a maximum credit period of five years, and by offering technical assistance. DEG has made its loan conditional on improvements in environmental responsibility and employee health and safety, and provides technical assistance to help JMS in implementing these measures; in doing so, DEG encouraged JMS to comply with and to go beyond international minimum standards. Specifically, DEG encouraged JMS to close down two factories that did not meet fire and building safety standards. Thanks to having already implemented many of the requirements, JMS enjoyed an advantage when the Accord on Fire and Building Safety in Bangladesh was signed in 2013. Moreover, its collaboration with DEG gave JMS access to the Gesellschaft für Internationale Zusammenarbeit (GIZ), another German development organization with which JMS is collaborating to improve social compliance. In this context, the company has joined the Alliance for Sustainable Textiles that was initiated by the German Ministry for Economic Cooperation and Development.

## 6. The costs and benefits of JMS’s engagement

The costs of JMS’s initiatives are well documented in accounting data; the benefits of the initiatives are apparent on all three levels – the company’s own workforce, its suppliers, and the local community. Figure 3 summarizes the costs and benefits of the initiatives at each level.

## 6.1 Costs and benefits of JMS’s workforce development

### Company benefits: Increasing JMS’s competitiveness

The comprehensive transformation project realized with Gherzi – including the training program for productivity that JMS embarked on in 2012 – incurred total costs of USD 1.5 million, of which USD 820,000 are related to skills development, while the rest was spent on machine equipment and furniture. On the benefit side, the training courses for the new production processes and machines created a tremendously positive impact on the company’s performance – boosting productivity (by 37%), increasing capacity (by 74%), and by improving quality, as well as reducing absenteeism (from 4% in 2012 to 2% per month in 2015), attrition (from above 5% in 2012 to below 2% per month in 2015) and wastage (the rejection rate decreased by more than 80% from January 2014 to May 2015 – see Figure 4).<sup>14</sup> In addition, profits have increased by over USD 1 million since 2012. It is impossible to disentangle the effects of the different elements of the transformation process, as each would not have been possible without the others. According to the former Gherzi consultant who now works as general manager for JMS, the most important productivity lever is the optimization of production layout, followed by the training of employees, and lastly the usage of new machines.<sup>15</sup>

To calculate the net benefit of the “training for productivity” program, one has to make some simplifying assumptions. On the basis of the former consultant’s expert judgment, it is assumed that 30% of the productivity increase (of 37% per worker) can be attributed to the training, while the remaining 70% should be attributed to the new production layout and

Figure 3: Overview of the costs and benefits of JMS’s engagement

Type of initiative	Initiative	Costs ('000 USD)	Beneficiaries			
			JMS	Employees	Suppliers	Community
A Workforce development	A.1 Training for productivity	One-off: 820	+++	+++		+
	A.2 Training station for on-boarding and continuous training	One-off: 26 Running: 6 p.a.	++	++		
	A.3 TVET for sewing-machine operators	One-off: N/A Running: 7 p.a.	++			+++
B Value-chain development	B.1 Supporting Bangladeshi fabrics production	No direct costs	+		+++	+
C Community development	C.1 Early childhood education and local schools	One-off: 15.5 Running: 38 p.a.	+	++		+++

+ Small benefits    ++ Medium benefits    +++ Large benefits



machinery.<sup>16</sup> On the basis of the 2012 production numbers and profit per piece, the 11% increase in productivity attributable to the training (i.e. 30% of the total productivity increase of 37%) leads to an additional income of about USD 330,000 per year – everything else remaining equal. Accordingly, the break-even point of the USD 820,000 investment in productivity training is reached after 2.5 years.

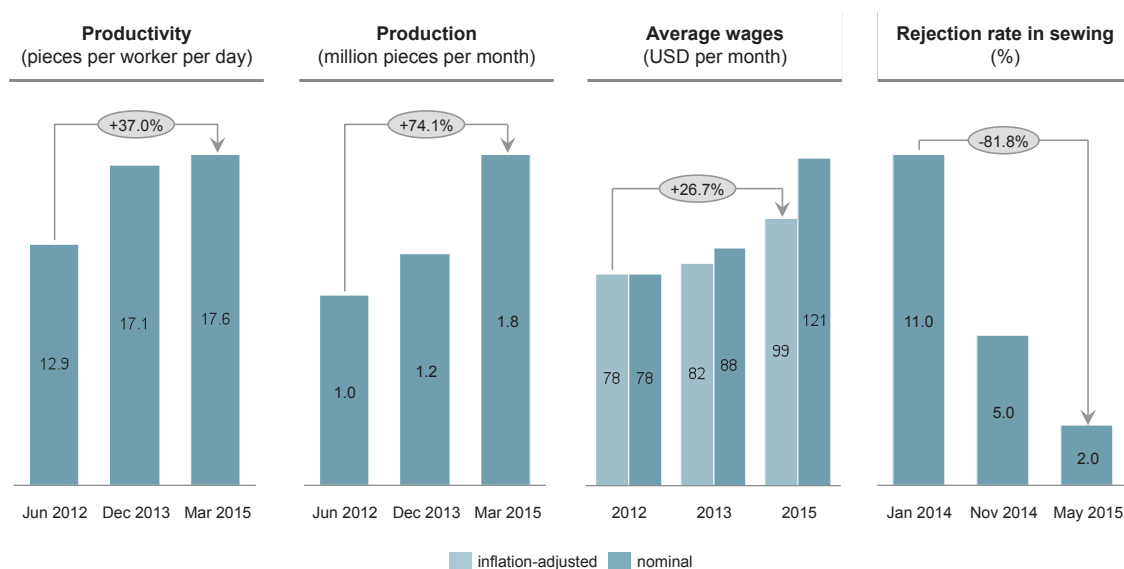
The training also had the effect of improving the product quality substantially – making JMS itself a benchmark for quality production in Chittagong. Consider too, in addition to the training measures, JMS’s ongoing construction and renovation of its production facilities and its introduction of new production techniques on all production lines: once all of this is completed, JMS will be able to service high-quality clients even better and to gradually upgrade its client portfolio to achieve higher margins. Given the positive effects of the Gherzi project, JMS is planning to work together with the NGO Impactt on complementary training to close the productivity gap relative to high-productivity countries like Indonesia and Turkey, and to further improve compliance. Impactt has an impressive track record in the RMG sector in Bangladesh through its Benefits for Businesses and Workers program.<sup>17</sup>

The training station had one-off costs of USD 26,000 for the equipment, and has running costs of about USD 6,000 per year for the instructors. It allows JMS to train new workers and existing staff without reducing the efficiency of its production process or incurring production losses. Through the on-boarding training, workers reach a high level of efficiency and quality, and the low running costs are offset through higher volume and quality of production. Thanks to the opportunity to train workers continuously at the training station, it is possible to make continuous improvements to the production process and to introduce new techniques and machinery smoothly.

In addition, as another important side-effect, the “training for productivity” program and the training station tend to increase specialization among the operators. That helps to boost retention, as employees who excel at operating a specific machine cannot easily transfer their know-how to other companies.

The TVET program did not require any investment costs from JMS. The set-up and the first two years of the program – specifically, the training equipment and the teachers – were financed by the ILO. Further funding is now provided by the I-K Foundation and the Directorate for Technical Education – funding for the four teachers and the running costs of the school – while JMS is responsible for the practical training, and contributes through technical support from JMS’s production manager and through the provision of fabrics. Four batches with up to 30 students are trained every year, and on completion of the practical training at JMS, the students receive a certificate and can decide whether to continue working for JMS or to work for another company. To date, six intakes have been completed, and about 50 graduates have joined JMS (for the first six intakes, the drop-out rate averaged 24%; a total of 94 students have graduated to date). The running costs of the TVET program for JMS can be split into direct and indirect costs. The direct costs consist of the USD 70 wage that JMS pays each trainee during the last month of training, which is the same amount that other recruits receive in the first month. With four intakes per year, each with an average of 26 students, the total direct running costs amount to about USD 7,280 per year. The program’s indirect costs arise from the technical support that the school receives via JMS’s production manager and from the provision of fabric for the school workshop – but these costs are negligible on this aggregate level, and have no impact on the result. As for the benefits of the program, JMS attracts women who would not otherwise have applied to work for JMS, ensuring a supply of 15-20 trained machine operators per intake, and

Figure 4: Development of KPIs over time



thereby reducing the need to hire unskilled workers from other sources. On average, about two thirds of the graduates have joined JMS, while others started working for Youngone Ltd., the largest textile company in Bangladesh, with Korean owners, or for other, smaller firms. Thanks to the practical exercises at the training station, graduates of the program can join the production process directly upon graduating, and they possess a deeper technical understanding of the process than unskilled workers that have not undergone the theoretical training at CMPI. Furthermore, the TVET program's graduates produce at a higher efficiency, averaging 60% vs. the 54% for a sample of other recruits.

In order to calculate the net benefit of the TVET program, one has to compare the costs and the benefits. Assuming a full capacity utilization of the program with four intakes of 30 students each, a total of 120 students graduate from the TVET program every year. If two thirds of these graduates continue to join JMS (80 students), JMS each year has to pay a wage to 40 trainees who do not join the company later – a total of USD 2,800 per year. After graduation, outside hires and graduates of the TVET program earn about USD 85 per month. In terms of benefits, the higher productivity of the program's 80 graduates that join JMS each year (using a piece price of USD 1.36 and a production rate of 170 pieces per month for other recruits) yields a positive net benefit for JMS of about USD 150,000 per year. In addition, the attrition rate of graduates of the TVET program is one third lower (22% vs. 33% per year) than that of other recruits, who often come from other parts of the country. From this simple business-case calculation, it is clear that the initiative provides a positive return for JMS.

### **Employee benefits: Increased earnings through higher productivity**

For JMS employees, the main benefit of JMS's workforce development is the higher salary they can earn through higher production efficiency (see the box for some brief case examples). Their compensation consists of a base salary, as prescribed through the national minimum wage, plus an efficiency bonus based on their daily performance. Each operator's performance is measured daily, and the bonus is calculated accordingly, reaching from BDT 15 per day for 66% efficiency to BDT 45 for over 99% efficiency. The daily bonuses are added up over the course of the month, and are doubled by JMS at the end of the month if efficiency remained above the threshold of 66% throughout. On average, 80% of machine operators reach the efficiency threshold and receive a bonus. Therefore, despite the reduction of working hours following the implementation of a two-shift system, workers' salaries increased significantly thanks to the transformation of production. In a study comparing JMS's average monthly wage with a sample of 41 factories that were trained by Impactt, it turns out that JMS's wage of USD 121 (BDT 9,414) is 36% higher than the average, which was USD 89 (BDT 6,921).<sup>18</sup>

In addition, workers benefit from better working conditions through changes in the production layout – for instance, higher desks or ergonomic chairs – reducing the strain on their backs caused by constant bending and bad furniture. The training on the training line – whether courses for new hires or refresher training courses – helps machine operators to attain higher productivity levels and thereby a higher income.

The participants on the TVET course get the chance to improve their circumstances, by virtue of their qualifications and increased employability. And their close connection with JMS allows them to continue working there and to provide for their families.

The commitment of JMS and its management to the well-being, health and safety of its employees is borne out by a major strategic decision of the Managing Director, Mr. Ali: namely, to close down two factories that did not meet safety standards, instead of trying to get by with minor changes and delaying any response to the demands. The garment industry is notoriously lacking in compliance with environmental responsibility and health and safety standards. What made Mr. Ali's bold and radical move all the more impressive is that one of the factories closed – Fashion Ltd. – was the first of the group's larger production facilities and had a high symbolic value.<sup>19</sup>

### **Community benefits: Creating and ensuring better jobs for local women**

The community benefits from JMS's workforce development through more and better jobs, which are being secured and will continue to be created thanks to JMS's increased competitiveness. Already, JMS is providing employment to more than 6,300 people, 70% of them women. The TVET course increases the employability of women from more distant villages who would otherwise not have found employment in the formal sector or earned an income but would have been limited to staying at home caring for their families. By means of the three-month training program, they can start working at JMS or other RMG companies in the area and secure a wage above the legal minimum. During the first two months of training, they receive a weekly allowance of BDT 80 (USD 1). Apart from the technical training, the women's livelihood skills improve through the sanitary and hygiene training, with positive spill-over effects on their families and neighbors. The training and employment of women is also likely to have long-term positive effects on the development of the local communities: numerous studies have shown the wide-ranging benefits in education, nutrition and health of children, and have also shown how family incomes increase through the improved intra-household bargaining power of employed women who contribute to household income.<sup>20</sup>

### Story of the beneficiaries

Two of the young women who are currently on the training line were persuaded by their school teacher to undergo the TVET program in order to earn money instead of just staying at home, caring for their families, and sewing for private use. They started the program with several other women from the same village, which eased their transition to the new working environment.

The case of two other young women shows the effects of the training: graduating from the first intake, they have now been working in JMS production for over a year, using several different machines and earning about BDT 9,500 (USD 122) per month – far more than the minimum wage, and a great help to them in sustaining their families.

## 6.2 Costs and benefits of JMS's skills development along the value chain

### Company benefits and benefits for the suppliers: Reaching export-quality standards and decreasing lead time

JMS's support for local suppliers has no directly related costs, as the knowledge transfer is mainly on an ad-hoc basis and is part of the purchasers' daily job. In return, by supporting its local suppliers, JMS is able to broaden its supplier base and to become less dependent on Chinese suppliers. The biggest advantage, however, is the decrease of 20 days in lead time, as it takes about 22 days to ship fabric from China to Chittagong. Being able to deliver quickly is a big competitive advantage in the fast-moving garment industry – particularly for the European market, where Turkish producers have a significant geographical advantage.

The suppliers benefit not only from elevated sales revenues, but most importantly from higher product quality, which helps them to acquire new clients. JMS is known in the Bangladeshi garment industry to produce increasingly for high-end brands in the US and Europe, which demand very high quality standards. In supplying JMS, the local producers can credibly demonstrate their ability to comply with these standards. Using JMS as a reference, they are able to win orders from other RMG producers in Bangladesh that also produce for more prestigious brands.

### Community benefits: Creating and securing employment in the community

JMS's local suppliers provide employment for more than 15,000 people. Sales to the local RMG industry help to secure these jobs. And further jobs should be created by higher product quality and higher productivity, as more fabric would then be sourced locally rather than from China. Taking the minimum salary

for machine operators of USD 86 per month as a proxy, that would suggest that the local suppliers generate an income of around USD 15.5 million per year for local households. JMS's own purchasing volume from local suppliers amounts to USD 7.2 million per year; local production means local value creation, with positive secondary effects such as increased revenues and employment for sub-suppliers.

## 6.3 Costs and benefits of JMS's skills development in the broader community

### Company benefits and costs: Corporate Social Responsibility with a positive side-effect

For the construction of the Hatiya Public Welfare Trust School in 2008, JMS invested BDT 1.29 million (USD 16,600). The ongoing financial support for the JMS Pre-primary School amounts to BDT 40,000 (USD 515) per month, and the contributions to the Hatiya Public Welfare Trust School and the Hatiya Community College are BDT 114,118 (USD 1,470) and BDT 87,000 (USD 1,120) per month respectively. Together with the scholarship payment of BDT 500 (USD 6.50) per month, the annual support totals about BDT 3 million (USD 38,630). JMS stresses that all engagement in the local community is purely CSR, and that no return of any kind is expected. Since JMS exports 100% of its goods and has no own brand, a positive company image in the local community is of much lower importance than for other companies. By supporting education on the island of Hatiya, the founder of JMS is able to give something back to his community. Similarly, the continuous support of the JMS Pre-Primary School outside the Chittagong Export Promotion Zone is mainly for philanthropic reasons. However, it is worth noting that most of the pupils are children of JMS employees, so the school does help JMS in retaining qualified workers: the employees recognize and appreciate JMS's engagement, and value the high-quality education provided.

### Community benefits: Narrowing the skills gaps through primary and secondary education

JMS established the Hatiya Public Welfare Trust School in the remotest area of Hatiya Island, a part inhabited by 35,000 people. Before JMS engagement, there was not a single school or college in that particular area (in fact, no college on the entire island). Through the support provided by JMS, nearly 1,000 students now have access to primary education, and more than 200 to secondary education.

Private-sector investment in schooling can make a significant impact in Bangladesh, as the lack of basic education – including literacy, and basic mathematical and English skills – represents a major obstacle to development. The school enables students from the island to find higher-qualified and better-paid jobs and to raise their living standards above those of their parents, who

often work in low-skilled jobs or small-scale agriculture and fish-farming. Intermediate education for the young people on the island is a prerequisite to obtaining higher education, and it opens the door to specialized jobs and managerial positions on the mainland – not only in the garment industry.

#### 6.4 Overall assessment of the costs and benefits

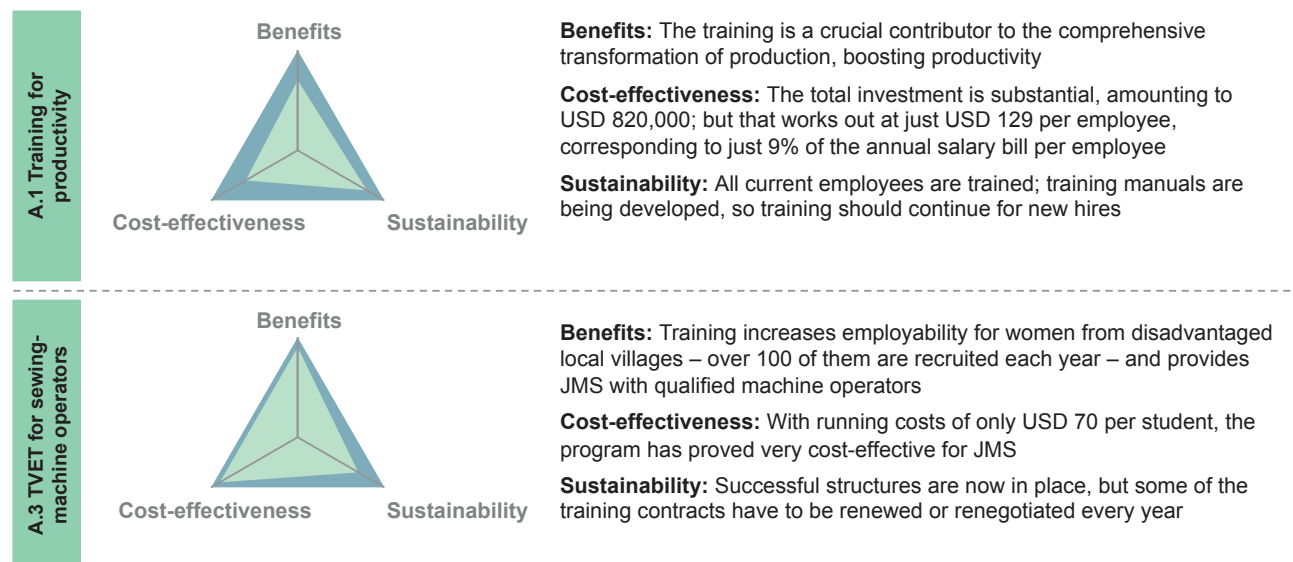
Figure 5 provides a summary assessment of the two key initiatives along three dimensions – benefits, cost-effectiveness and sustainability.<sup>21</sup> The size of the green triangle indicates the performance of an initiative along these dimensions: the larger the green triangle is, the better is the overall performance of the initiative. One glance shows that both of the initiatives have registered a good overall performance.

- **The training program for productivity**, as discussed earlier, generated considerable benefits for JMS, transforming its production and boosting its productivity. In terms of sustainability, the development of training manuals and the completed training of all current employees ensure that training can be continued for new hires and that refresher training courses are offered. Regarding cost-effectiveness, the program received substantial investment, but it remains relatively inexpensive at the employee level, corresponding to just 9% of the average annual salary. The business-case calculation showed that break-even is reached within 1.5 years.
- **The TVET course for sewing-machine operators** scores very high along all three dimensions: it increases local employability (providing additional jobs each year for more than 100 women from disadvantaged areas, who most likely would not have entered the job market otherwise), while costing

only USD 70 per student for JMS – no more than the cost of recruiting unskilled workers at the factory gate. The business-case calculation showed a net benefit of USD 150,000 per year. As for sustainability, the continuity of the program is ensured: structures are well-established, with teachers, curricula and a functioning workshop in the CMPI; and there are long-term funding agreements between JMS, the I-K foundation and the Directorate for Technical Education. However, the current contractual arrangements between JMS and the school to train the students at the worksite in their final month are valid for just one year. But six intakes of students have now progressed, and the collaboration is a proven success, so the partners might move to a longer contract period, lasting several years, to increase planning security and thereby ensure sustainability.

By weighting the overall costs and benefits of all initiatives, the following appraisal emerges. JMS has invested heavily in the skills development of its current and prospective workforce, its suppliers, and the local community. The five initiatives listed in Figure 3 had direct measurable one-off costs of USD 861,151 and running costs of about USD 51,000 per year, corresponding to 1.1% and less than 0.1% respectively of the company’s 2014 revenues. So, clearly the overall costs of the initiatives are relatively small, particularly for the vocational training program and the training station. In return, JMS has been able to reap great benefits from the implemented initiatives, which laid the foundation for substantial increases in productivity and quality. The business case for the TVET program also showed a positive financial return for JMS, even though not all of the program’s graduates join JMS. If they do join other RMG companies, though, that still represents a benefit – for the local community.

Figure 5: Summary assessment of two selected initiatives



JMS's employees have also benefited considerably, since the training enabled them to achieve higher efficiency and thereby increase their income, while at the same their working conditions improved extensively. Local suppliers of fabrics benefit too, from JMS's know-how transfer and financial assistance, which improve the quality and timeliness of supply as well as the health and safety of their workers. The local community in Chittagong and Hatiya profits greatly from JMS's commitment to enhancing education and its contributions to local schools and colleges. In addition, the creation of more and better-paid jobs, especially for women, is likely to lead to substantial secondary benefits in the form of higher consumption, and better education and health for children. To sum up, JMS's initiatives have shown that investment in the skills development on all three levels is not only beneficial for its employees, suppliers and the community, but also pays off financially for the company itself, and lays the foundation for future growth in a competitive sector.

## 7. Conclusion

JMS has successfully trained its workforce, and its initiatives have helped to boost productivity and competitiveness, while also reducing attrition. The business-case analysis shows that the benefits of the initiatives clearly outweigh the costs, creating a positive overall business impact. Going forward, JMS needs to further tackle its skills gap in production mid-management, a challenge that has not yet been fully addressed.

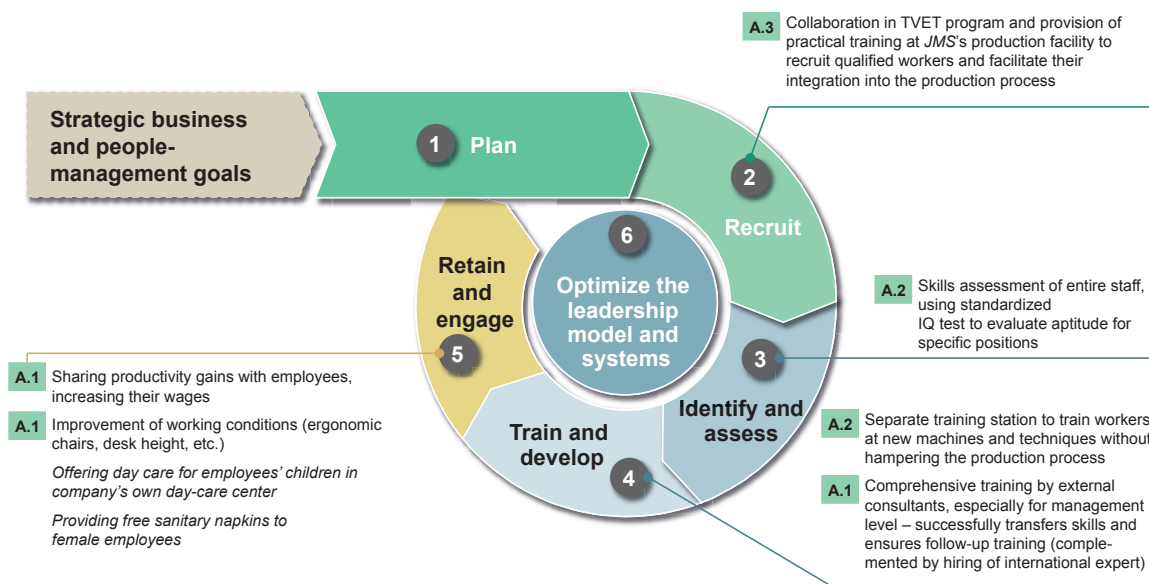
## Good practices from JMS that can help companies to close their skills gaps

From studying JMS's initiatives, it is possible to identify a number of widely applicable good practices. Figure 6 presents an overview of these practices.

Among these good practices, it is worth highlighting four elements that other companies could replicate or adapt to their specific needs and context:

- 1. Introduction of a separate training station (A.2).** In manufacturing industries, it enables the provision of practical training for new hires and of refresher training courses, all without hampering the actual production process (good practice 4.4 in the good-practice framework for workforce development described in Chapter 2.1).
- 2. Linking wage increases to productivity gains through a transparent efficiency bonus (A.1).** It serves as a means of increasing workers' engagement and retention. At the same time, it allows the community to enjoy the benefits of technological advances and increased automation in the form of higher household incomes (good practice 5.2).
- 3. Improvement of working conditions (A.1).** A simple example is that of equipping work stations with ergonomic chairs and keeping working material at the same height in order to avoid constant bending over. These small changes in workplaces not only benefit workers' health but also increase efficiency (good practice 5.4).

Figure 6: Overview of good practices from JMS's workforce development



Note: Measures that are printed in italics are not described in detail in this case study.

**4. Investing in non-financial benefits for employees.** A simple example is the provision of free or subsidized sanitary napkins. When employers take such measures, at very low cost, in female-dominated industries, they demonstrate that they care for their employees, and thereby help to reduce absenteeism and increase retention (good practice 5.4).

#### Key factors for improving the business case for JMS's TVET program

The business-case analysis of JMS's TVET program has shown that the initiative undoubtedly has a positive business effect. As the running costs are already very low, the main lever for improving the business case even further is to increase the benefits of the program. To this end, two actions are worth considering:

- Increase the number of TVET graduates that join JMS. Analyze the reasons why about a third of the TVET students decline to join JMS after graduating; develop targeted measures to improve the ratio; keep reinforcing during practical training the benefits of working for JMS.
- Leverage the theoretical knowledge and loyalty of the TVET graduates. Develop a fast-track career program for TVET graduates by means of specific training courses that build on the TVET curriculum; that will make JMS even more attractive for these graduates, and will at the same time help to bridge the skills gap in production mid-management.

#### Lessons learned from JMS

From an analysis of JMS's initiatives, it is possible to derive several lessons that might help other companies to address skills gaps more successfully:

- **Transparent and comprehensive career paths are crucial for internal development.** The development of clear career paths – offering every employee an attractive career outlook – forms the basis for the systematic development of employees, and increases their motivation and their affiliation with the company (good practice 4.1).
- **Enabling changes between production and non-production departments is key to developing the production staff.** When designing comprehensive career paths, ensure that career transitions are possible between production and non-production departments, and facilitate such transitions by means of specific training courses. In that way, you can enhance the career prospects of production staff (good practice 4.1).
- **Retention and integration of new hires within the company is essential.** In order to retain new hires (especially migrant workers) and integrate them quickly into the company, introduce a mentoring and buddy system for new hires – ideally with mentors from the same region in the case of migrant workers (good practice 5.5).
- **Providing specific education opportunities for women aged 16-18 is critical for increasing female participation in the labor force.** Many women who leave school at 16 are lost as prospective employees, since they cannot join

the TVET program until they turn 18. Accordingly, it is worth investigating opportunities to provide specific vocational training for women aged 16-18 (good practice 4.4).

- **Integrating supplier training into supply-chain management is vital for achieving sustainable improvements.** Ensure a systematic supply-chain management system that identifies the key issues (and includes them in supplier training), provides incentives for suppliers to engage in training, and monitors results systematically. Such a system creates the preconditions for sustainable improvements in quality and timeliness of supply (good practice 1.1, 3.4, and 4.5 in the good-practice framework for closing skills gaps in the broader community described in Chapter 2.3).

#### Notes

- <sup>1</sup> Information provided by JMS. If no specific reference is given, information in this case study is based on information provided by JMS and/or based on expert interviews conducted in Bangladesh in July 2015.
- <sup>2</sup> The following exchange rates are used: 1 USD = 77,71 BDT; 1 USD = 0.91 EUR.
- <sup>3</sup> World Trade Organization (2015), Clothing – Merchandise Trade by commodity.
- <sup>4</sup> World Bank (2015), Labor force, total.
- <sup>5</sup> International Labour Organization (2015), Improving working conditions in the ready made garment industry: Progress and achievements.
- <sup>6</sup> Morgan Stanley (2015), Bangladesh Ready-Made Garments Industry: Moving towards Sustainability – Executive Summary.
- <sup>7</sup> Accord (2013), Accord on Fire and Building Safety in Bangladesh.
- <sup>8</sup> Therefore, a further expansion of production is expected, and various comparative studies have identified Ethiopia, Kenya and Tanzania as probable candidates for RMG manufacturing sites. For more information, see Solidaridad Berenschot (2014), Africa en vogue – the opportunities and challenges of textile & apparel market sourcing in East Africa.
- <sup>9</sup> World Bank (2014), Recognizing Prior Competence: Increasing Skilled Manpower in Bangladesh. <sup>112</sup> For example, World Bank (2015), Bangladesh – Skills and Training Enhancement Project.
- <sup>10</sup> For example, World Bank (2015), Bangladesh – Skills and Training Enhancement Project.
- <sup>11</sup> World Bank (2010), Skills and Training Enhancement Project – Project Information Document.
- <sup>12</sup> Impactt's training program includes an HR module that aims to increase retention and attendance. For more information on the training and its impact, see Impactt (2013), Nicer Work? Impactt's Benefits for Businesses and Workers Programme 2011-2013.
- <sup>13</sup> Scholarships for the same students in grades 6, 8 and 9 are provided by other companies from the region.
- <sup>14</sup> 2015 figures are monthly averages calculated on a year to date basis.
- <sup>15</sup> By introducing two-shift production, JMS also managed to solve the previous overtime problem: the first shift simply cannot work longer than eight hours, since the second shift then begins. In that way, the two-shift production contributed to reducing the reputational and legal risk that all RMG manufacturers face from non-compliance with labor law.
- <sup>16</sup> The 30% attribution to training is a lower-bound estimation. So the net benefits of the training program might be even higher.
- <sup>17</sup> Impactt (2013): Nicer Work? Impactt's Benefits for Businesses and Workers Programme 2011-2013.
- <sup>18</sup> Ibid.
- <sup>19</sup> Before signing its loan agreement, DEG encouraged JMS to improve fire and building safety in these two factories. Their closure paved the way to the DEG financing.
- <sup>20</sup> See for instance Doss, C. (2011), Intrahousehold bargaining and resource allocation in developing countries – Background Paper for World Development Report 2012.
- <sup>21</sup> The other three initiatives are summarized in the overall qualitative assessment below.