Harnessing Compliance to Improve Well-being and Productivity:
The Impact of Better Factories Cambodia
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An independent impact assessment of Better Factories Cambodia (BFC) conducted from 2015-2018 provides evidence that engagement with the programme and improved compliance can drive positive change. Key findings include:

**Better Factories Cambodia leads to reduced working hours, in line with legal compliance, without negatively affecting take-home pay.** Using workers’ own reports on their average working time, researchers show that participating in BFC leads to an average reduction in overtime of 5.8 hours per week (or 8.8 per cent) as factories achieve compliance with working time regulation. At the same time, increased compliance with wage regulation in a time period of rising minimum wages shows this reduction in working time does not ultimately reduce workers’ reported take-home pay. As a consequence, the effective pay per hour for workers in the study rises 41 per cent, all else being equal. By encouraging adherence to compliance with legal wage regulations, the effect of BFC is consistent with the steady increases in the minimum wage that have been implemented throughout Cambodia’s garment sector in recent years.

**Factory productivity increases.** Efficiency rates, as measured by workers’ reported time to achieve their daily and hourly production target, increase by approximately 20 per cent compared to firms which had not yet fully participated in the BFC programme. Factories simultaneously increase their production targets and planned production. Taking the two trends together, researchers estimate an average cumulative productivity improvement between 26 – 31 per cent.
However, costs associated with the increase in hourly pay outpace increases in productivity. As compliance with pay and hours increases, costs to the firm increase. Rising costs of compliance could be off-set by rising productivity, yet the current analysis suggests that workers are capturing a greater benefit of higher social compliance, relative to firm management. Researchers suggest this is evidence of the need for supply chain adjustments, including better pricing terms from buyers, which are likely needed to ensure a return to the firm from higher compliance.

Workplaces become more respectful. Workers’ reported exposure to behaviours constituting sexual harassment falls over time. Researchers identify BFC’s work to ensure wage compliance, resulting in better aligned pay structures between workers and managers, as the driving factor in this reduction. Training and grievance systems, taking into account the diversity of workers’ circumstances, are a key priority for future actions.

Human resource management skills improve. Better Factories Cambodia not only drives improvement in compliance, but it also influences managers’ mindsets and human resource management skills. For example, through engagement with BFC, managers are more likely to view timely and accurate payment to workers as an important priority. Efforts to address workers’ concerns about low wages, as well as concerns about excessive overtime for workers at end-of-production processes are areas for further attention.

Workers experience greater well-being and potential for social development. As factories participate in BFC, workers become less likely to believe that they must regularly work overtime to earn sufficient income, report less need for overtime to meet basic necessities, as well as less concern with work hours and their pay rate. When asked to rate their overall life satisfaction, workers report higher satisfaction, as measured after their factory participated in BFC for three years. Yet, differences by gender persist for overall satisfaction in life and work.
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HARNESSING COMPLIANCE TO IMPROVE WELL-BEING AND PRODUCTIVITY: THE IMPACT OF BETTER FACTORIES CAMBODIA
1. Introduction

Better Factories Cambodia (BFC) was created in 2001 as a programme for the International Labour Organization (ILO) to directly monitor labour conditions at exporting garment factories. The programme engages with employers’ and workers’ organizations, government partners, and international apparel brands to pursue dual objectives of improving working conditions and firm competitiveness.

Factory participation in BFC was originally mandated by the US-Cambodia Textile and Apparel Trade Agreement, which provided increased export quotas to the US market in return for improving working conditions in the garment sector. After the expiration of the trade agreement in 2004, the Cambodian government, together with unions and employers, requested that the ILO set up a sustainability strategy to turn Better Factories Cambodia into a self-financing local institution. The ILO designed and implement this strategy in conjunction with the International Finance Corporation.

Better Factories Cambodia consists of interlocking interventions of unannounced assessments of labour standards compliance, public reporting of results, advisory services focused on promoting worker-manager dialogue and continuous improvement, and specialized training services. Learnings from the programme and its experience as the garment sector grew rapidly in Cambodia informed the establishment of the Better Work programme in multiple other countries since 2009.

The garment sector continues to play a large role in Cambodia, representing well over half of total export value of the country. BFC covers 550 factories that employ over 600,000 workers. As it builds on success at the factory level, while also deepening engagement with partners to create a culture of compliance in the sector, the programme commissioned an independent impact assessment to help elucidate the causal impact of the programme on working conditions and competitiveness. This brief presents findings from recent research papers that summarize the impact assessment study conducted by a research team from Tufts University from 2015-2018.

IMPACT ASSESSMENT METHODOLOGY

Survey data collection was conducted between 2015 and 2018 in 57 Cambodian apparel factories. All were new entrants within their first three years of enrolling in BFC. Researchers from Tufts University designed worker and manager surveys to ask about a range of working conditions, factory operations, and life at home. Local research partners conducted data collection independent from BFC factory visits.

In order to establish a direct link between Better Work compliance assessments, advisory services and training, and factory improvements, researchers studied similar firms that had been exposed to BFC for different lengths of time. Two rounds of data collection were conducted. The sample of the study covers about 12 per cent of BFC factories. A total of 3,024 worker surveys and 105 manager surveys were conducted, and where possible, the same individuals were surveyed in both time periods. Women comprise 83% of the sample respondents.

The researchers used a tablet computer for the worker surveys, with Audio Computer-Assisted Self-Interviews (ACASI) software. The questions were translated and read out in the local language. In this way, the researchers sought to help workers feel more comfortable in sharing their concerns. This method also shielded them from the risk of being overheard by supervisors or managers while sharing their responses. In each factory, the researchers surveyed four managers: the general manager, finance officer, HR manager and an industrial engineer.
2. BFC impact on working conditions and well-being

Working conditions play an important role in determining the overall state of well-being for workers. The current research aims to establish measurements of well-being through feedback from worker surveys, and it is designed to measure how well-being changes over time, including isolating the contributing effect of Better Factories Cambodia. The analysis summarized here measured well-being through a range of indicators. Objective measures include actual self-reported earnings and working hours, while subjective questions cover workers’ life satisfaction and concerns. A summary of key variables analyzed is seen in Table 1 below.

<table>
<thead>
<tr>
<th>TABLE 1. MEASURES OF WELL-BEING</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective questions</strong></td>
<td></td>
</tr>
<tr>
<td>Weekly pay (USD)</td>
<td>53.80</td>
</tr>
<tr>
<td>Hourly pay (USD)</td>
<td>0.91</td>
</tr>
<tr>
<td>Weekly working hours</td>
<td>59.81</td>
</tr>
<tr>
<td>Overtime hours</td>
<td>12.03</td>
</tr>
<tr>
<td><strong>Subjective questions</strong></td>
<td></td>
</tr>
<tr>
<td>Are you concerned about too much overtime work? (4-point scale, 4=highest concern)</td>
<td>1.62</td>
</tr>
<tr>
<td>How concerned are you about wages being too low? (4-point scale, 4=highest concern)</td>
<td>2.77</td>
</tr>
<tr>
<td>To have sufficient income for basic necessities, workers like me have to work overtime on a regular basis. (agreement on 5-point scale)</td>
<td>3.63</td>
</tr>
<tr>
<td>How satisfied are you with your job overall? (5-point scale, 5=highest satisfaction)</td>
<td>4.153</td>
</tr>
<tr>
<td>How satisfied are you with your life overall? (5-point scale, 5=highest satisfaction)</td>
<td>4.27</td>
</tr>
</tbody>
</table>

N=3,024 respondents: 2,501 (83%) women; 523 (17%) men

The first set of findings relate to the reported levels of pay and hours the workers experience. Findings show that BFC has a positive impact on reducing long hours of work that are typical in the apparel sector. Average working hours reported by workers decline during the course of the study by nearly six hours per week (Figure 1), holding constant firm attributes and factors such as seasonality. This reduction in overtime hours is attributable to exposure to BFC, and it occurs with no accompanying reduction in weekly pay. Higher compliance with wage regulation during a time period of rising minimum wages suggests this reduction in working time does not ultimately reduce workers’ reported take-home pay. As a result, the effective rate of pay per hour reported by workers rises by $0.37 on a base of $0.91, or by 41 per cent (Figure 2).

The next group of findings focus on workers’ perception of the desirable level of working time and pay. Analysis of workers’ subjective evaluation of their working time and pay reinforces evidence of positive improvements linked to participation in the BFC programme. In the months following the BFC compliance assessment, and particularly after the third assessment, workers were less likely to believe that they must regularly work overtime to earn sufficient income, reported less need for overtime to meet basic necessities, and reported less concern with work hours and their pay rate. For instance, the percentage of workers reporting that they have to work overtime on a regular basis to meet basic necessities drops by 5 percentage points, or a relative decline of one-third. (Figure 3).
Finally, the core set of variables measuring well-being in the impact assessment study involve asking workers to assess their level of satisfaction with their jobs and with their life overall. Workers’ reports of job satisfaction do not change with any statistical significance over time. However, researchers detect a programme impact of BFC related to an increase in life satisfaction. Overall life satisfaction improves among workers surveyed, particularly after three years of an employer’s participation in the programme.

At endline, about 41 per cent of women report that they are very satisfied with their job overall, compared about half of men, and are also ten percentage points less likely to report that they are very satisfied with their life (Figure 4).

It is clear that the above measures of well-being are not exhaustive. Other important facets of well-being can include enabling rights at the workplace, workplaces free of discrimination and harassment, healthy interpersonal relationships and the ability to be heard, occupational safety and health, and the ability to progress and grow in one’s professional life. Although these variables were not the subject of formal impact analysis, summary statistics comparing responses between baseline and endline surveys can highlight key trends. The remainder of this section describes improvements in interpersonal relationships between workers and their supervisors, safety and health, as well as gender equality.

First, when asked how often their supervisors followed factory rules, close to 1 in 5, or 19 per cent of workers answered “Never.” There is some slight movement downward in this figure, dropping to 16 per cent at endline (Figure 5). Workers were also asked whether they agreed with the notion that it is all right for them to be critical of their supervisors. About half of respondents were in disagreement with this statement at baseline. More respondents, represented by an increase in five percentage points, agreed that it is acceptable for workers to be critical. This may indicate a relaxation of strict hierarchy in the factory, or a greater openness to dialogue and joint-problem solving at the workplace, which is a key priority of the BFC programme (Figure 6).
Ensuring compliance with occupational safety and health standards (OSH) remains a major challenge in the garment industry. Findings from worker-level surveys suggest there has been improvement in selected issues, including the share of workers reporting to use personal protective equipment (PPE), from 39% at baseline to 43% at endline. Further on the topic of ambient working conditions, excessive heat and severe thirst are among workers’ most significant health concerns at endline, reported by 55 and 32 per cent of workers respectively (Figure 7). In general, men tend to report OSH concerns more frequently than women. Specifically, they are more likely than women to report feeling severe backache, irritation of the eyes, nose or skin and cough relative to the sample average (Figure 8). This is consistent with observations that more men are more likely to be employed in high-risk operations in the garment sector.

Regarding workplace discrimination, about 20 per cent of workers interviewed at baseline reported being treated differently because of their gender by a supervisor or manager. In the endline survey, this number is reduced to 15 per cent of respondents (Figure 9). Regarding the ability to achieve advancement in the factory, there appears to be some positive movement over time based on workers’ responses. When asked about their career progression, more workers reported being promoted at their factory at least one time after three years of a factory’s participation in BFC, however promotion rates remain low: whereas 83 per cent of workers reported never receiving a promotion at baseline, 78 per cent reported the same in endline surveys (Figure 10). A closer look at training and promotion rates reveals different experiences for workers with different profiles and family responsibilities.

While there were no significant differences in training and promotion opportunities between male and female workers at endline, some gaps are found when comparing women with different educational levels.
Women with greater childcare responsibilities and education up to primary school, in particular, are less likely to receive training and promotions than highly educated women (Figures 11 and 12 respectively). About 16 per cent of women in this sub-group are trained on worker rights and 17 per cent on new skills, while a large minority has not received any trainings. The corresponding share among women with higher education is 23 and 24 per cent for worker rights and new skills, while 28 per cent did not receive any trainings. Further, about 34 per cent of highly educated women were promoted at least once in the past year, compared to 25 per cent for female workers with education up to primary school.

Ensuring a workplace free of violence and harassment, including sexual harassment, is a necessary condition to advance worker well-being. The topic of sexual harassment was studied at length in the current impact assessment, given its recognized wide-spread nature in apparel manufacturing workplaces. Having workers complete surveys in an autonomous, self-guided manner likely contributed to workers’ willingness to express their views on this topic. Workers’ responses follow an expected pattern, with arguably less severe forms of harassment being reported as more widespread: 56 per cent report concerns about teasing or joking they were uncomfortable with at the workplace, 45 per cent report concerns about uncomfortable talking or touching, 31 per cent report sexualized talking and touching, and 19 per cent report that supervisors and managers sometimes try to have a sexual relationship with them. Responses from human resource manager surveys also shed light on the topic. In an indication of the pervasiveness of the problem, 71 per cent of workers in the impact assessment sample are employed in factories where the HR manager acknowledges that quid pro quo harassment is perceived as a concern among workers.
A closer analysis of violence and harassment concerns during the endline survey demonstrates that differences exist in how women and men experience or acknowledge harassment in the workplace. For instance, women are more likely to experience material thrown at them (7 per cent among women, relative to 2 per cent of men, Figure 13). Fewer women than men, however, appear to voice their concerns about sexual harassment. When asked if there was any flirting or joking in the factory that made workers uncomfortable, 53 per cent of women report feeling uneasy compared to 65 per cent of men (Figure 14). This suggest that men have greater propensity to speak up or to recognize that these issues are a concern in the factory. Further, only 44 per cent of workers believe that an adequate reporting system for sexual harassment exists in the factory, with no statistically significant difference by gender, suggesting that grievance procedures and anti-harassment training can be improved.

Findings for different sub-groups of women demonstrate that women without children are more likely to experience flirting or uncomfortable joking than other women (58 vs 50 per cent, Figure 15). In addition, among women with children, lower-educated women with infants are more likely to be exposed to sexual harassment from their manager or direct supervisor relative to highly educated women. When asked about managers or supervisors talking or touching workers in a sexual way, 35 per cent of women with lower education and with young children report some level of concern, relative to 20 per cent of women in the higher education sub-group (Figure 16). The baseline analysis also found statistically significant differences in how women with and without dependents experience verbal abuse and harassment in the workplace. These findings corroborate the dynamic whereby young women without children may be more likely subjected to sexual harassment due to stereotyping and gendered beliefs that intersect with age and stage on the life cycle.
Researchers conducted analysis of the impact of BFC on sensitive topics like sexual harassment. They found that at the time of the third year assessment, workers report that sexual harassment is less common, an effect researchers attribute to participation in BFC. The level of worker concerns about sexualized talking or touching drops by nearly one response category on a four-point scale, from “Rarely” to “Never” after one year in the programme. Similarly, workers’ reports about supervisors or managers trying to have a sexual relationship with them become less frequent after the first and third year of participation in the programme. Results also suggest that organizational tolerance for sexual harassment is reduced, with the largest effect emerging after the first and third assessments. The main channel by which BFC reduces sexual harassment is through improvements in power relationships determined by misaligned pay incentive structures between workers and supervisors. Sexual harassment is found to be most common in factories where workers are paid based on their productivity, or “by the piece,” and supervisors are paid a fixed salary.

Enforcement of minimum wage laws fostered by BFC reduced the fraction of worker pay that is linked to productivity. At the time of the first assessment, 28 per cent of workers in the study had 100 per cent of their pay based on productivity, while by the second assessment only nine per cent have their pay solely determined by productivity, and 67 per cent have none of their pay based on productivity. By the third assessment, only one factory was using incentive pay. This very large shift away from incentive pay for workers, attributable to BFC, explains the reduction in workers’ vulnerability to quid pro quo sexual harassment from their direct supervisor.
3. BFC impact on productivity and business operation

The monitoring of factory compliance provided by BFC has led to important benefits for the Cambodian economy, including the creation of jobs and expanding export volumes. Under the US-Cambodia textile agreement, BFC’s transparent reporting has led to quantifiable increases in the quota bonuses due to improved compliance. Since the mid-2000s to date, the risk mitigation that the good labour practices and monitoring provided to buyers has led to their increased sourcing from Cambodia.²

Beyond sector-level trends, however, from an employer’s perspective, a natural question arises: Is there a productivity gain that accompanies evidence of BFC inducing an increase of costs, due to compliance with higher minimum wages and with working time? Researchers set out to answer this business case question by examining the efficiency rate of workers, the production quotas set by employers, and by extension, the overall individual worker productivity in the a given firm in the sample. Analysis from the research summarized in this brief show that production efficiency, measured as the time elapsed to achieve hourly and daily production targets reported by workers, rises by over 10 per cent after the first year of participation in BFC, and by up to an additional 11 per cent after two years. In natural response, factories appear to be increasing their production targets as they participate in the programme. These trends together indicate a rise in per-worker productivity. Researchers estimate cumulative productivity gains over the course of the study that range between 26 and 31 per cent, depending on the specification used.

As mentioned, greater compliance can be costly for firms, and the question remains whether both worker and firms can simultaneously benefit. That is, a question remains as to whether the higher productivity that accompanies better working
conditions match the costs. The present analysis shows that the costs associated with the increase in hourly pay are at least as large as the increase in productivity and tend to exceed them. In other words, workers seem to retain a greater benefit of higher social compliance. The findings suggest that even with large increases in productivity, increased profits to not necessarily follow. In order to ensure a bottom-line benefit from greater social compliance, factories must be able to leverage greater social compliance for better terms from customers in their supply chains, including higher prices and/or larger orders from their buyers, or for new commercial opportunities.

Finally, the impact assessment analysis also sheds important light on how BFC is changing the mindsets of management and how they operate their businesses (see Box on p.13). Survey responses show that most managers do agree that social compliance increases productivity. Consistent with the findings above, managers’ responses also reveal that they do not believe this translates automatically to higher profitability. In terms of changing managers’ outlook on how to operate their firms, the largest impacts of BFC as a programme intervention are observed in managers’ awareness of industry dynamics that are detrimental to worker well-being, such as not paying workers fairly and on time. After three years of participation in BFC, there is an increase in the percentage of managers believing in the importance of fair pay.

CONCLUSIONS AND FUTURE RESEARCH

Findings from independent impact assessment analysis with data conducted between 2015 and 2018 in 57 factories participating in BFC demonstrate that the programme is having a significant and positive impact on worker well-being, including in helping achieve workplaces free of sexual harassment. While increased compliance translates into reduced overtime hours and increased hourly pay reported by workers, firms can also benefit from higher productivity. Workers report achieving their daily and hourly production targets more quickly, while at the same time, factories report increasing their production targets in substantial ways. However, as compliance with pay and hours increases, costs to the firm increase and the costs associated with the increase in hourly pay outpace increases in productivity in the current study. While BFC plays a catalyzing role in improving these outcomes, transforming managerial beliefs and human resource practices, together with further linking supply chain and customer terms with performance, remain critical areas for further work and research.

This brief summarizes key findings and policy implications of the following working papers from the impact assessment of the Better Factories Cambodia programme:


ENDNOTES

1. Further analysis on the effect of gender, care responsibilities and education levels can be found in the research brief, “Gender and Care: Exploring Differences in Workplace and Life Outcomes,” August 2020, available from betterwork.org/publications.

2. For further details, see the brief, “The Business Benefits of Better Factories Cambodia” September 2019, available from betterwork.org/publications.
The Better Work Discussion Paper Series is an original, peer-reviewed series that presents rigorous, work-in-progress research material for comment and feedback. It is addressed to researchers, policymakers and development practitioners to generate comments and encourage discussion.