

International  
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# INWORK Issue Brief No.10

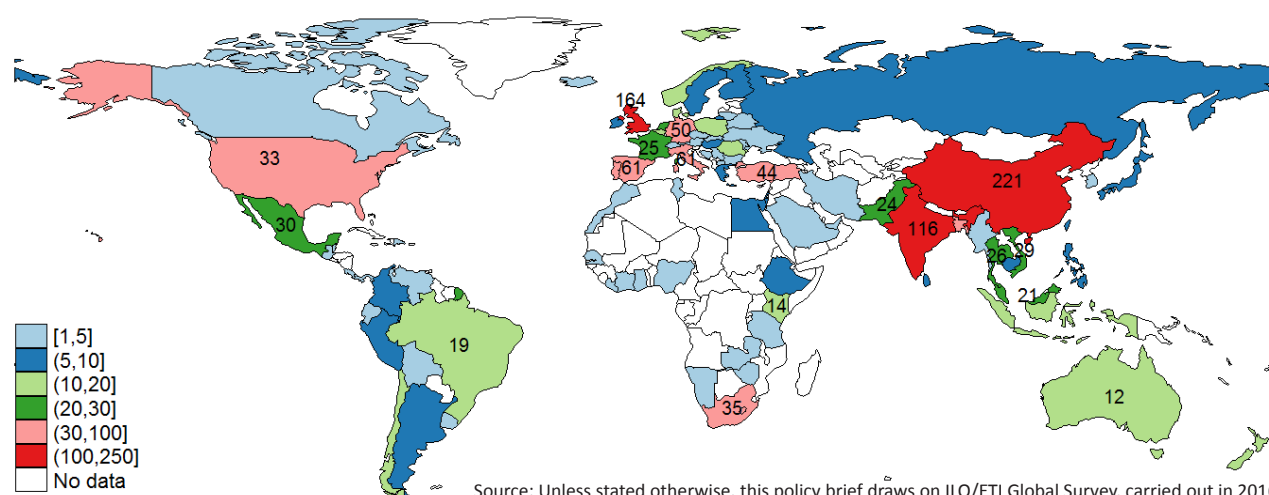
## Purchasing practices and working conditions in global supply chains: Global Survey results\*

### 1. Introduction

The International Labour Organization (ILO) and its constituents, at the 105<sup>th</sup> Session of the International Labour Conference (ILC), discussed the need to further assess working conditions deficits as well as governance issues that may hinder the achievement of decent work in global supply chains (GSCs) (ILO 2016a). Specifically, the Conference asked the ILO to “take a proactive role in generating and making accessible reliable data on decent work in GSCs” and to “carry out research ... to better understand how supply chains work in practice ... and what their impact is on decent work and fundamental rights” (ILC, 105<sup>th</sup> Session, Resolution concerning decent work in GSCs, ILO 2016b).

The Inclusive Labour Markets, Labour Relations and Working Conditions branch (INWORK) took action to contribute to fill this gap by carrying out a Global Survey on purchasing practices and working conditions in collaboration with the joint Ethical Trading Initiatives (ETIs).<sup>1</sup> This Global Survey<sup>2</sup> was sent out between July and October of 2016 to a pool of 41,387 suppliers, provided mainly by SEDEX,<sup>3</sup> but also by the ETIs. In total 1,454 suppliers<sup>4</sup> from 87 countries responded to the questionnaire; Figure 1 shows the number of companies that responded in each country.

Figure 1. Number of suppliers in the Global Survey, by country, 2016



Source: Unless stated otherwise, this policy brief draws on ILO/ETI Global Survey, carried out in 2016

\* This document was prepared by Daniel Vaughan-Whitehead and Luis Pinedo Caro, within the framework of the programme Labour Standards in Global Supply Chains financed by the Government of the Federal Republic of Germany.

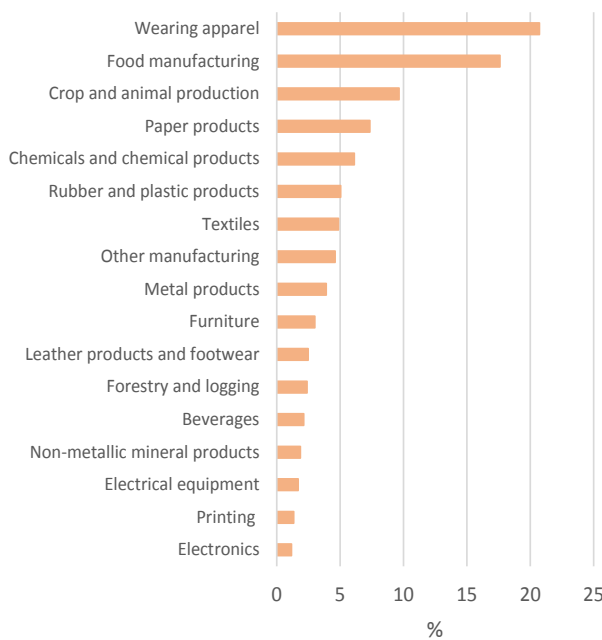
<sup>1</sup> Ethical trading initiatives of Denmark, Norway and the United Kingdom; see forthcoming guide (ETI 2017). <sup>2</sup> All the graphs, maps and tables shown in this brief are based on results from this survey. <sup>3</sup> SEDEX, Supplier Ethical Data Exchange, see [www.sedexglobal.com](http://www.sedexglobal.com) for more information. <sup>4</sup> At the same time, the survey also collected information on roughly 500 intermediaries that will be analysed in a forthcoming working paper, which will also further investigate several of the issues addressed in this brief.

Two of the countries with the highest number of companies are China (221 suppliers in our sample) and India (116), but all geographical areas are represented, including other Asia-Pacific countries, Africa, the Americas and Europe with a good combination of suppliers from developing, emerging and more developed countries. The activities performed by these suppliers (see Figure 2) cover most manufacturing industries, including garments, food, chemicals and metals, as well as the agricultural sector.

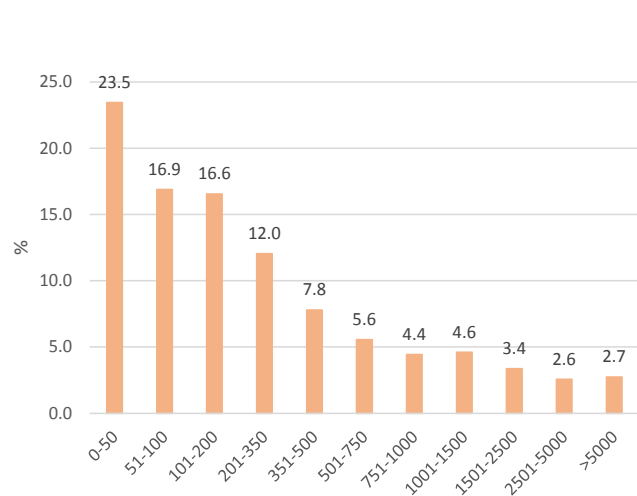
This Global Survey is also strong in terms of number of workers covered. Since the average number of workers in the surveyed companies was 1,026, the sample covers nearly 1.5 million workers.

Finally, this study is able to analyse purchasing practices and working conditions by firm size. As can be seen in Figure 3, the companies vary greatly in size, which allows us to reach results and conclusions that are not restricted to a particular type of company.

**Figure 2. Suppliers by economic activity (in %)**



**Figure 3. Suppliers by number of employees (in %)**



In terms of female employment the survey also shows a diversity in women’s participation among companies surveyed. While surveyed suppliers in the Garment sector were found to be dominated by women (who represented 57 per cent of employees), their participation was lower in sectors such as Chemicals and Plastics (26 per cent and 17 per cent, respectively). Women are also found to be underrepresented in managerial positions in all sectors (see Box 1).

The combination of such ample geographical and sectorial coverage, the high number of workers in the surveyed companies and the depth of the questionnaire completed by suppliers makes this study unique and provides an opportunity to better understand purchasing –and more generally business– practices in global supply chains (section 2) and their relationship with working conditions in global supply chains (section 3).

### Box 1. Female employment in surveyed suppliers

Women in the companies surveyed are over-represented in some sectors like Garment but generally underrepresented in all the others (see Figures 4 and 5) where no female occupation achieves the 50% parity threshold.

This pattern would be even stronger if it were not for the TCLF (Textile, Clothing, Leather and Footwear) industries which employs the highest share of women. However, even though the TCLF are the industries with the highest share of women they are also the industries with proportionately less women in middle managerial and top executive positions, indicating the existence of higher barriers toward promotions.

This trend is common in all sectors, translating into a percentage of female top executives that is half of their representation in other occupations within the company.

Figure 4. Female employment, all sectors

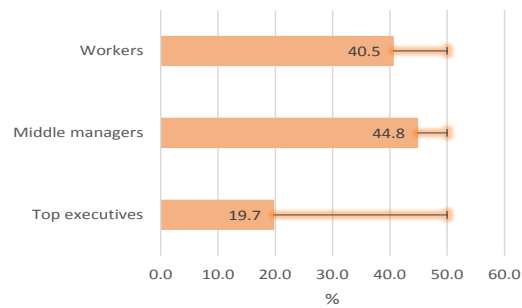
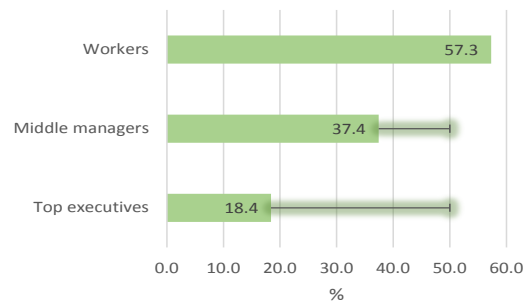


Figure 5. Female employment, TCLF industries



## 2. Business practices

We have identified 5 major business practices between the buyers and the suppliers that may influence wages and working conditions: contracts clauses, technical specifications, order placement (and lead times), prices and market power, and requests for social standards. While many of these areas are heavily influenced by the buyers' policies, we also find that the profile of the suppliers may also play an important role when explaining the working environment and working conditions.

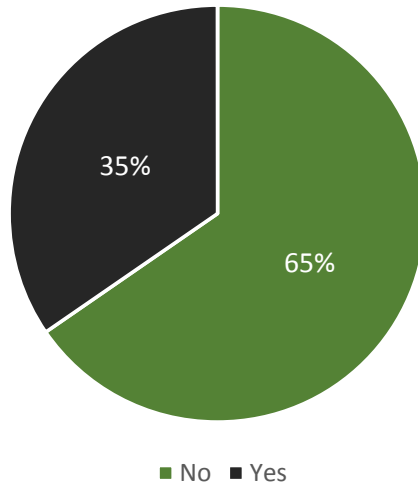
### 2.1 Contract clauses

#### Lack of systematic written contracts

The type of contract signed between the buyer and the suppliers is found to be a relevant factor in terms of its influence on suppliers' behaviour. The more comprehensive the contract, the more stable and guaranteed the overall context in which the suppliers operate. In particular, unwritten contracts are usually more difficult to enforce and may lead to serious consequences for all the actors,<sup>5</sup> including financial losses, performance issues and lack of job security for the workers themselves. Results from our Global Survey suggest that 35 per cent of suppliers have some unwritten contracts with buyers, this percentage being even higher in suppliers from countries such as Bangladesh (38 per cent) and South Africa (46 per cent) and lower in suppliers from China (25 per cent) and India (23 per cent).

<sup>5</sup> See the article by Trowbridge (2015).

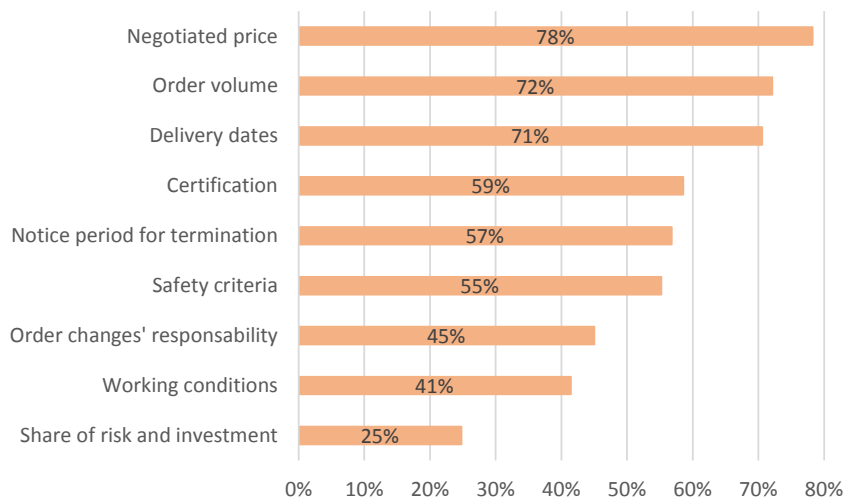
**Figure 6. Percentage of firms having unwritten contracts with their customers**  
(Do you have unwritten contracts with any customer?)



**Lack of information in the contracts**

While most contracts seem to specify basic terms and conditions (type of product, volume, price, quality and delivery dates), other terms are often missing; for instance, only 45 per cent of the contracts specify who would be responsible for the costs incurred when there are changes in orders and only 41 per cent specify minimum standards of working conditions (49 per cent in the textile, clothing, leather and footwear industries). Firm size matters and large suppliers (with more than 500 employees) seem to benefit from complete contracts with buyers more than small ones (less than 100 employees). In particular, large firms (13 per cent of the sample have more than 1,000 employees) are more likely to have clauses related to “minimum working conditions” and “responsibility for changing orders”.

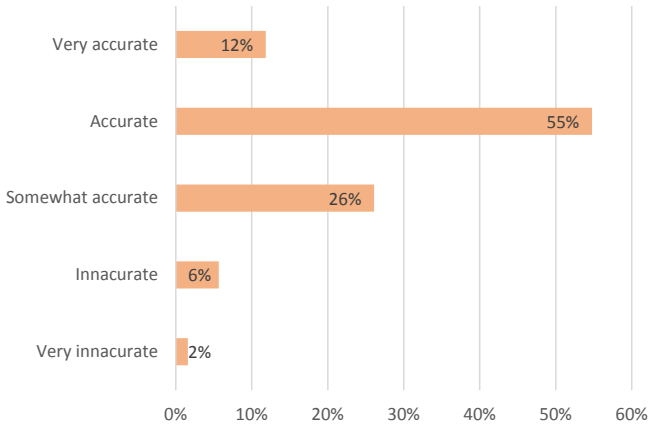
**Figure 7. Information included in written contracts between the buyer and suppliers**  
(What elements do written contracts with your customers usually require or include?)



## 2.2 Technical specifications and product development

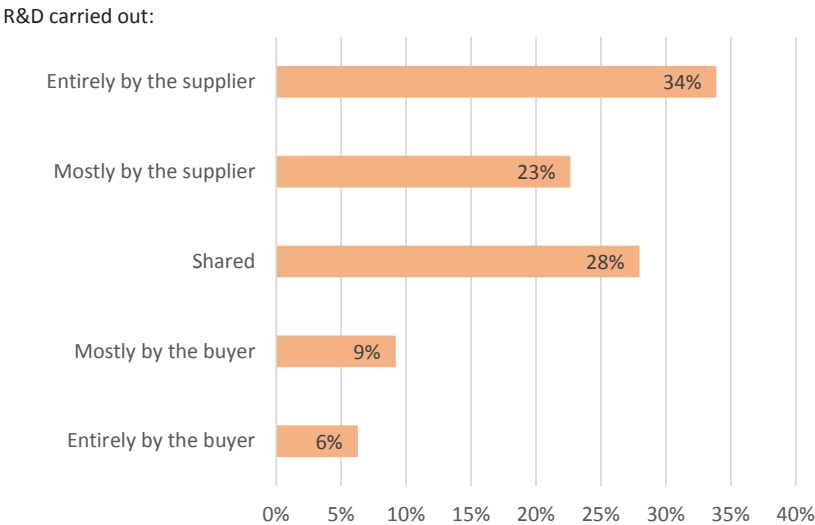
A second important factor that may influence the suppliers' context is the accuracy of the technical specifications (about the products and their features) given to them by the buyers along with their orders. In particular, unclear needs and inaccurate specifications from the buyer can lead to excessive sampling and extra costs, as underlined by Ethical Trading Initiative-Norway (2014) and the BetterBuying guide (2016). Based on our Global Survey results we find that one-third of the companies suggest that there is room to improve technical specifications (last three bars in Figure 8). This percentage is even higher in sectors such as textiles, clothing, furniture and chemical products, while technical specifications are perceived as more accurate in the food and machinery industries. These results do not vary much by country or by firm size, confirming that the prevalence of this lack of accuracy in technical specifications is relatively homogenous and rather widespread among suppliers of GSCs.

**Figure 8. Accuracy of buyers' technical specifications**  
(How accurate were your customer's technical specifications over the past year?)



Something that could help in terms of technical specifications is whether the suppliers are relatively autonomous in terms of research and development or whether they entirely depend on the buyers in that respect. Results from our Global Survey are rather encouraging because more than half of the surveyed suppliers reported carrying out their own product development. This trend should be further encouraged since, as emphasized by a survey by PwC (2013) on global supply chains, establishing product research and development could represent an effective strategy for suppliers.

**Figure 9. Research and development responsibility**  
(How do you and your buyers share the responsibility for research and product development?)



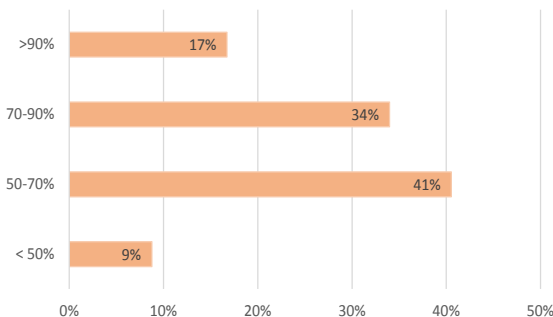
### 2.3 Order placement and lead times

Buyers' placement of orders, and in particular the timing with which buyers place their orders, was found to be another key factor for suppliers. In fact, this timing directly influences the lead times that the suppliers have for preparing the volume of goods requested by the buyer. Significantly, only 17 per cent of suppliers in our Global Survey considered their orders to have enough lead time; the majority reported that more than 30 to 50 per cent of their orders had insufficient lead times. Clearly, lead times are getting shorter and suppliers must produce more rapidly, which they increasingly do by resorting to overtime, casual labour or even outsourcing of production in order to meet their deadlines. We shall look at this in more detail below. Sometimes, short lead times are due to a lack of effective communication between suppliers and buyers; for instance, an Indian garment producer reported that sample approval is taken by his buyers as the point at which bulk production can start, while the supplier still needs to clarify other aspects of the product, such as testing, packaging and other details. Another case study<sup>6</sup> in India pointed out differences in what buyers understand as real production times: while some buyers take production time from order placement, others take it from sample approval. The textile and garment manufacturers (TCLF), alongside those in the glass and paper industries were identified as those with the most inadequate (too short) lead times.

**Figure 10. Percentage of orders that have sufficient lead times**

(How would you rate the lead times demanded by customers?)

'More than 90%', '70-90%', '50-70%', or 'less than 50%' of total orders have sufficient lead times



While buyers placing orders late can make it more difficult for suppliers to meet deadlines, suppliers can face penalties from the same buyers if they do not meet deadlines. From our Global Survey, 5 per cent of the suppliers face penalties for failing to meet order specifications, an average that increases to 35% in the textile and clothing industry.

### 2.4 Market power and prices

Because one of the most important elements in the relationship between buyers and suppliers is price, we tried to obtain information about negotiations and contracts on prices, and the position of the different actors in this process.

We first asked suppliers about the number of buyers with whom they operate to get an idea of their range of clients. Our Global Survey reveals that many of them are dependent on a very limited number of buyers, something that reduces their negotiating power and thus their ability to achieve higher prices.

<sup>6</sup> These cases come from Phase 2 of this project, for which face to face interviews were carried out at the factory level in more than 25 factories to further understand how supply chains work in practice. The results will be presented in a forthcoming working paper.

**Figure 11. Main buyer share of sales distribution**

(What is the percentage of production taken by your largest customer?)

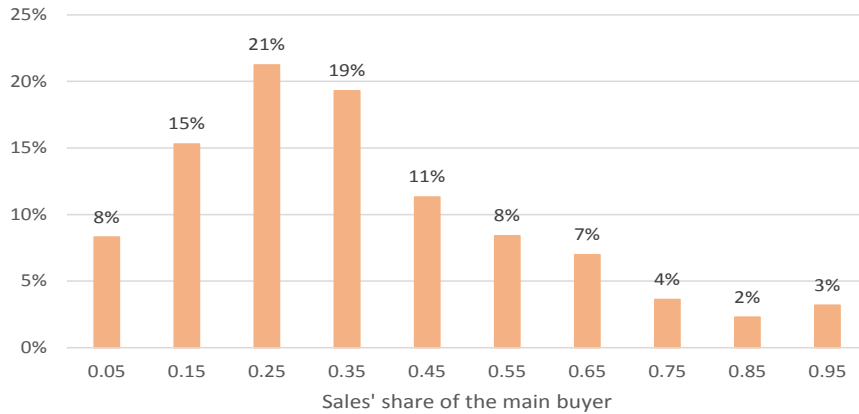
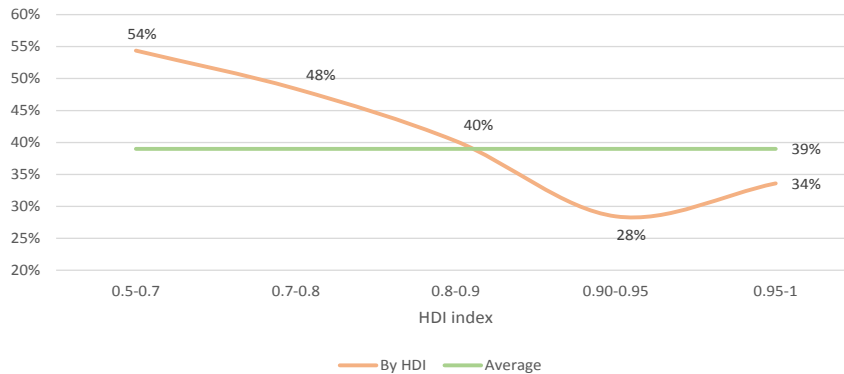


Figure 11 shows that the main buyer takes more than half of the production (last five bars on the right side) in nearly one quarter of suppliers (24 per cent); 54 per cent of suppliers (those whose main buyer takes at least 35 per cent of their production) have a high dependency risk. The percentage of firms at high dependency risk is around 75 per cent in the garment and in the agricultural sectors. When we break down the analysis by suppliers' country profile, we find that suppliers from developed countries are in a better position to negotiate good prices: only 20 per cent of suppliers from countries with a high Human Development Index (HDI) are at high dependency risk compared with 54 per cent of suppliers from countries with a low HDI index.

**Figure 12. Percentage of firms that sell below cost by suppliers' country HDI profile**

(During the past year, did you accept orders below the cost of producing them?)



The price is one of the most important criteria for buyers, who, according to many suppliers we interviewed, impose extreme pressure on suppliers' price quotes. Significantly, 39 per cent of the suppliers reported having accepted orders<sup>7</sup> whose price did not allow them to cover their production costs (see Figure 12). More specifically, the survey finds that the percentage of suppliers that sell below cost is relatively constant among the different sectors with the exception of the textile and clothing industry, where such an outcome is reported by 52 per cent of suppliers.

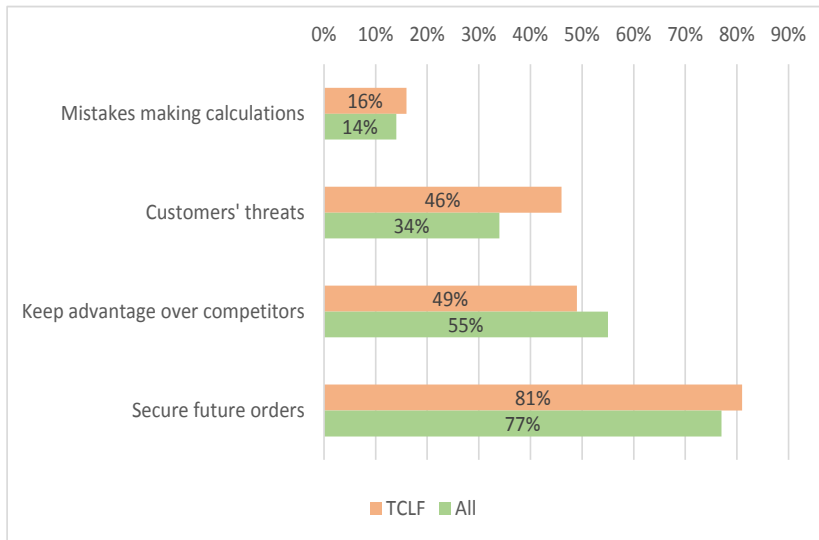
In addition, suppliers located in countries with a lower HDI index are much more likely to sell below costs, probably reflecting a lower bargaining position compared with suppliers in more developed countries that have access to more diversified buyers and countries and may also have products with higher value added.

<sup>7</sup> At the same time, qualitative studies carried out to complement these results show that orders below cost do not represent the majority of orders, with suppliers trying to compensate losses from certain orders with orders where their profitability is higher. This possibility is however limited among suppliers that have not managed to diversify their clients/buyers.

We investigated the root causes behind this. Figure 13 sheds some light on the tough competition faced by companies in our Global Survey; 55 per cent of suppliers reported selling below cost to keep their competitive advantage over their competitors, a practice that generally benefits buyers in terms of price. In fact, 77 per cent of suppliers explained that one of the main reasons for selling below cost was to secure future orders (81 per cent in textiles, clothing, leather and footwear), and in this sense this strategy might indeed be favourable in the long term by enabling them not to halt production even though the percentage of production costs which are covered by the contract price are limited in the short run.

**Figure 13. Reasons why suppliers sell below cost**

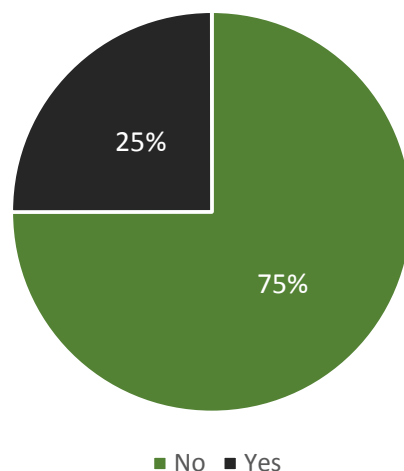
(What were the main reasons for accepting orders below cost?) (among those who reported having accepted orders below costs)



This practice on the part of suppliers is likely to be influenced by the pressure put on them over prices by buyers. It was quite revealing in the Global Survey that one-third of the suppliers that sold below cost did so under pressure from their buyers. The percentage of suppliers in this situation was particularly high in the garment sector – it affected nearly half the suppliers there (46 per cent) – and among Chinese (57 per cent) and Bangladeshi (52 per cent) suppliers. Finally, 14 per cent of suppliers reported that sales below production costs were at least sometimes due to their own mistakes in calculating their expected production costs.

**Figure 14. Percentage of buyers willing to increases prices to cover an increase in minimum wages**

(What percentage of your customers were willing to reflect the minimum wage increases in the price paid?)

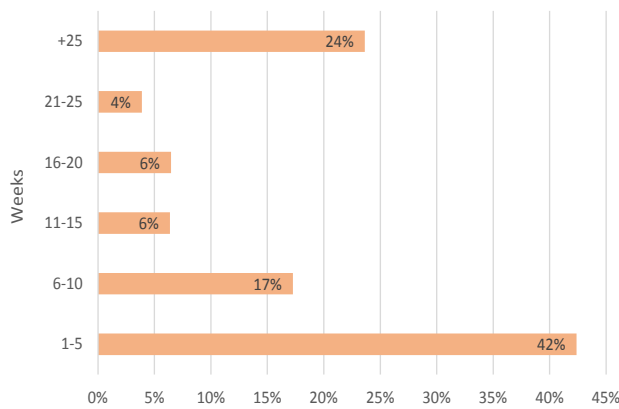




The Global Survey results (see Figure 14) also indicate that buyers are not always willing to adjust their prices to incorporate statutory increases in the minimum wages of suppliers' countries. On average suppliers reported that only 25 per cent of their customers were willing to do so; however, in Bangladesh, for instance, the figure was much lower (at 17 per cent). Finally, suppliers reported that they had to wait an average of 12 weeks before being able to incorporate the minimum wage increase in the prices obtained from the buyers. Obviously such delays may put additional pressure on their profitability, with clear consequences for their ability to pay wages (see Section 3). Moreover, the above results might appear rather paradoxical in light of the recent pressure from major global brands to encourage the governments of countries such as Bangladesh or Cambodia to increase the level of the minimum wage – and the same buyers' commitment to increase prices to allow this to happen.<sup>8</sup>

**Figure 15. Average period after which suppliers are able to incorporate minimum wage increases in their prices**

(On average, after how many weeks was your company able to incorporate minimum wage increases in the prices quoted to customers?)

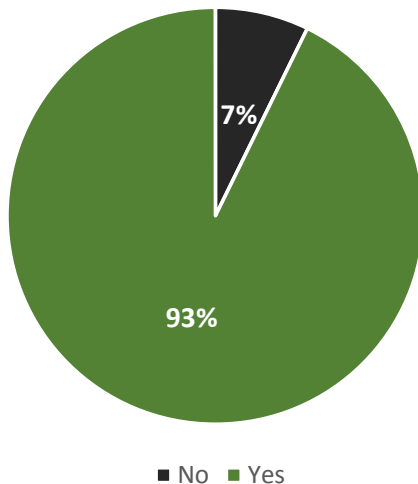


## 2.5 Demands for social standards

The demands that buyers make on their suppliers obviously also influence the overall context in which those suppliers have to operate. According to our Global Survey, more than 90 per cent of the surveyed suppliers were expected by their buyers to follow a code of conduct; the proportion is even higher in the food and clothing industries.

**Figure 16. Demands that suppliers follow a code of conduct**

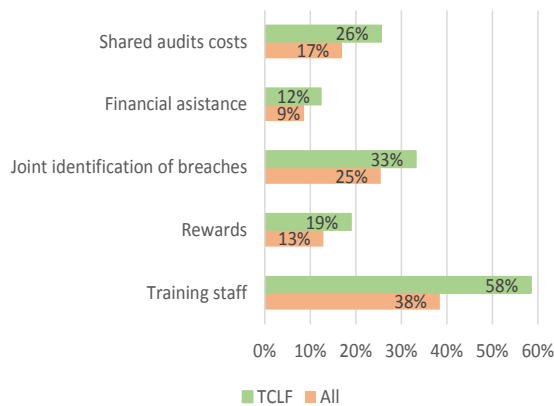
(Do any of your customers expect you to follow a code of conduct?)



<sup>8</sup> See, for instance, "Fashion retailers agree to increase minimum wage in Cambodia", *The Guardian*, 21 September 2014; <https://www.theguardian.com/business/2014/sep/21/fashion-retailers-offer-raise-minimum-wage-cambodia>

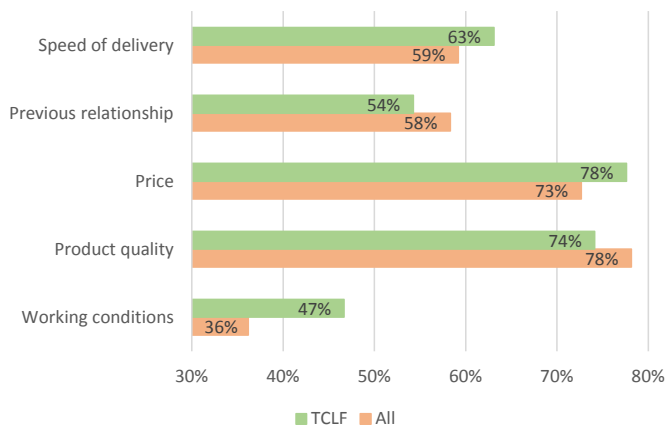
While this demand on suppliers especially on social standards can only be seen as a positive development, we also tried to see whether the responsibility (and the costs) for the implementation of such codes of conduct were shared by the buyer. The Global Survey results show, however, that nearly half of the suppliers (49 per cent) that are expected to follow a code of conduct receive no help from their buyers in achieving the demanded social standards. The remaining 51 per cent were found to receive some assistance such as staff training or a joint identification of breaches. Only 17 per cent, however, were found to enjoy shared audit costs and even less (9 per cent) to receive financial assistance. For companies in the TCLF industries the situation is slightly better because two-thirds of suppliers receive support from the buyers, notably in terms of training (see Figure 17). This may not necessarily mean that garment buyers are more concerned than others but rather that working conditions in this industry might be worse.

**Figure 17. Type of help provided by buyers to implement a code of conduct**  
(If your customers help you meet their code of conduct requirements, in what ways do they do so?)



There seem to be tensions on the part of both suppliers and buyers between<sup>9</sup> enforcing social standards and prevailing purchasing practices. These tensions are shown in Figure 18, which presents buyers' main concerns when choosing a supplier. It is revealing that price remains the main criterion for buyers – twice as important as working conditions – when deciding on a supplier.

**Figure 18. Buyers' criteria in assigning orders**  
(Do your customers use any of the following criteria to assign an order?)



<sup>9</sup> See Lee (2016).

### 3. What is the impact on working conditions?

In our Global Survey, suppliers were asked to report about the effects that the above purchasing practices may have in terms of working conditions. They also reported more generally about their workers' wages, working time and other working conditions, as presented below.

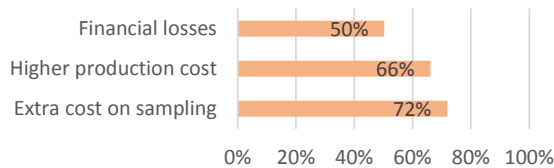
#### 3.1 Purchasing practices and wages

Suppliers responding to our Global Survey emphasized the impact that the business practices described above could have in terms of wages, wage costs and overall profitability.

A majority of them first highlighted the effects of inaccurate technical specifications received from the buyers: for 72 per cent of them they lead to additional time and costs spent on sampling; moreover, for 66 per cent, inaccurate technical specifications lead to increased production costs and for 50 per cent even to a financial loss for the company. Obviously, these outcomes have, consequently, indirect effects on wages, which often represent an adjustment variable once other costs have been covered.<sup>10</sup>

**Figure 19. Effects of inaccurate technical specifications**

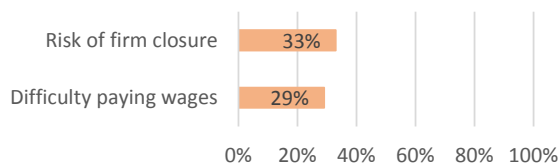
(What are the main effects of inaccurate technical specifications on your company?)



Not being able to secure prices that at least cover production costs also has direct effects on wages – and may boost undeclared work – because in this case prices do not even generate a margin for the supplier. According to nearly one-third (29 per cent) of suppliers, prices below the costs of production would likely lead them into difficulties in paying workers' wages and/or overtime pay. In addition, 33 per cent of them also insisted that it exposes them to the risk of going out of business, an extreme situation that can only lead the management to reduce labour costs by cutting wages or by evading social security contributions and labour tax in order to remain in business. We also saw that the lack of willingness of buyers to incorporate legal minimum wage increases immediately into their prices also put suppliers in a difficult position for a number of months during which they have to bear the sole burden of minimum wage increases, thus also reducing their margins and putting their survival at risk.

**Figure 20. Effects of selling below cost**

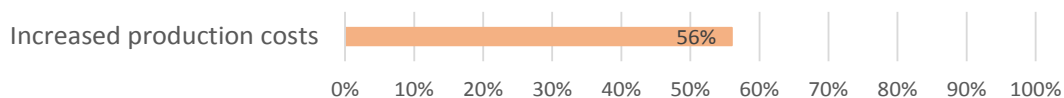
(What are the consequences of frequently not securing a price that at least covers the costs of production?)



Finally, order placement and lead time also have a direct impact. According to 56 per cent of suppliers participating in our Global Survey, insufficient lead times lead directly to increased production costs, thus also putting more pressure on wages as another component of production costs (see Figure 21).

**Figure 21. Effects of insufficient lead times**

(What is the main consequence of insufficient lead times for your company?)



<sup>10</sup> See Vaughan-Whitehead (2010).

There is another factor that may influence wages (and other working conditions), which is the presence or not of workers' representatives and of social dialogue institutions on wages. Box 2 highlights that trade union presence is not widespread among suppliers and that collective agreements are often missing – only 34 per cent were covered by an enterprise collective agreement. Our Global Survey results also revealed that workers' representatives are rarely involved in discussions about wages (overall in 28 per cent of the suppliers, in 43 per cent of suppliers based in Bangladesh and in 15 per cent of those of Turkey).

### Box 2. Social dialogue and labour relations in surveyed companies

According to the answers of the managers in the surveyed suppliers, we observe that the types of workers' representative bodies vary inside global supply chains. While the least developed countries attest a higher presence of workers' committees (which in many cases are mandated by law), in the rest there is a higher percentage of trade unions in companies. The presence of trade unions is particularly high in the chemical and paper industries (45% of suppliers) and low in the food and garment industries (22%).<sup>11</sup>

In terms of collective agreements it should be stressed that workers were covered by a collective agreement in 34% of the surveyed companies. The industries with the highest percentage of collective agreements are the chemical and metal industries, while the agricultural sector and plastics manufacturing have the lowest.

Unfortunately, although the existence of workers' representative bodies is widespread, in reality they rarely have the opportunity to affect changes to their working conditions. Figure 24 shows that workers' committees are seldom engaged in discussions/consultations on working conditions, a result which is even lower with respect to wages. In addition, evidence from follow-up factory visits for instance in China, India and Turkey shows that workers are often not aware of the existence of workers' organizations.

Figure 22. Existence and type of worker representation

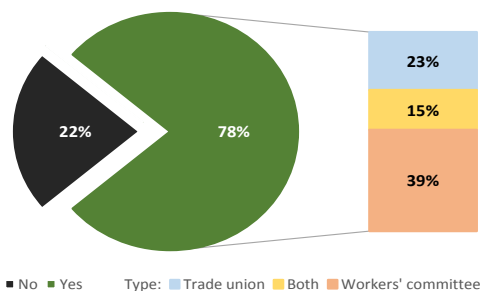


Figure 23. Existence and type of collective agreement

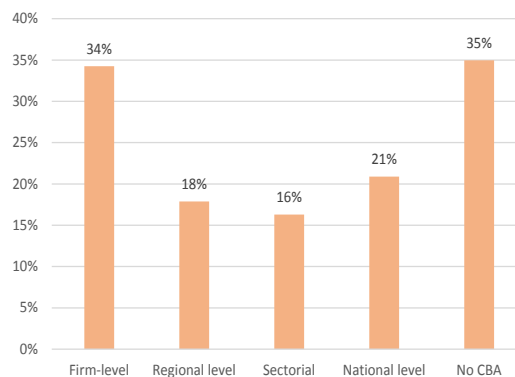
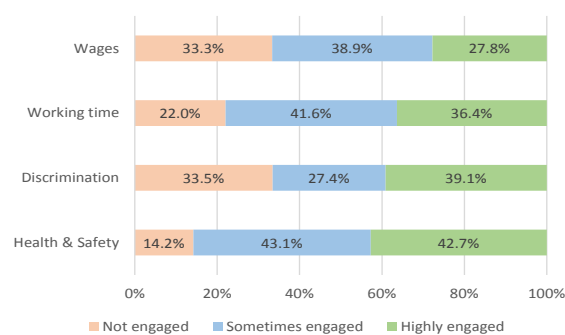


Figure 24. Engagement of workers' committees in discussions/consultations on the following issues

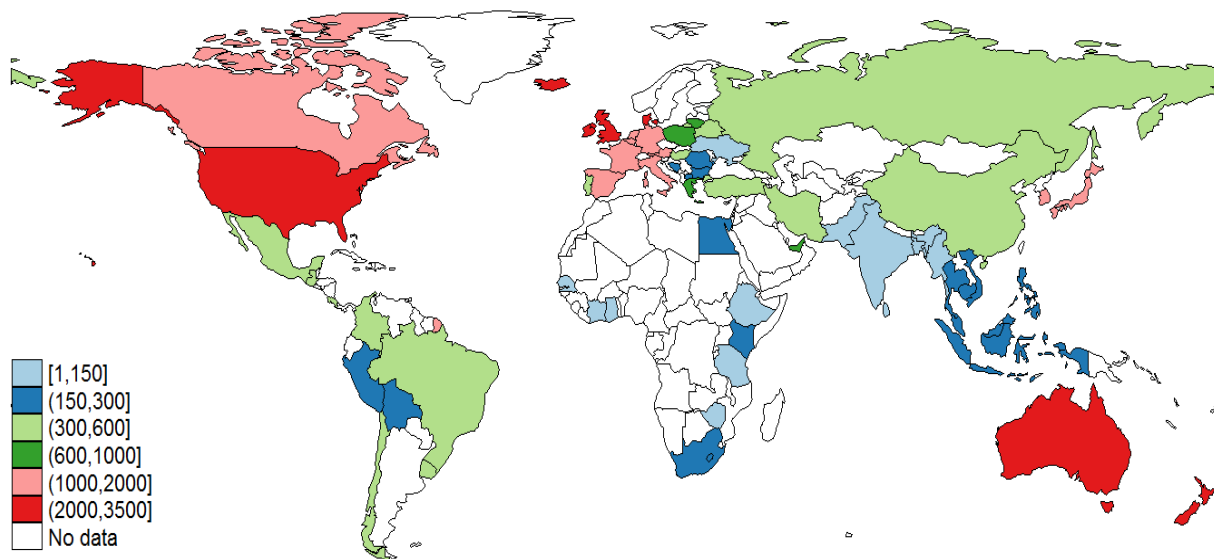


<sup>11</sup> It should be noted that these percentages reflect the number of factories reporting the presence of at least one trade union. The data cannot be interpreted to represent trade union density.

The map in Figure 25, constructed from data provided by suppliers, confirms the existence of low wages at the end of the supply chains. This map presents the average starting monthly wage (in nominal US dollars of 2015) paid in companies engaged in global supply chains on a country by country basis. In some countries starting wages are below 150 USD a month, thus highlighting, on one hand, where labour is cheapest and likely to attract more business within global supply chains in the future and, on the other hand, where workers may be facing tougher living conditions.<sup>12</sup>

This map also shows that ample differences in wages co-exist in suppliers' markets, having as primary drivers the economic strength of the country where the supplier is based and market forces at the local level. The Global Survey's statistics reveal how most BRICS have established themselves in the middle of the wage ranking, with Brazil leading the way, closely followed by China, Russia and South Africa.

**Figure 25. Starting monthly wage among surveyed suppliers, nominal USD of 2015**



Even though local market forces greatly shape wages, an open question remains whether the buyers' purchasing practices described above may be influencing workers' wages or not. We thus performed a statistical/econometric analysis<sup>13</sup> to assess the relevance – and measure the impact – of some of the purchasing practices mentioned in Section 2 on average hourly wages: the accuracy of the technical specifications, the buyers' attitude towards the supplier (measured by the suppliers' answers to a number of questions) and the market power of the supplier (measured by the percentage of its production taken by its main buyer). All these indicators may influence the suppliers' profitability and, as a result, wages. In order to complete the picture we also included the existence of trade unions and/or workers' committees and also of a firm-level collective agreement on the assumption that these two indicators help to measure social dialogue, which might generate higher (negotiated) wages.

<sup>12</sup> Note that wages in PPP terms (not shown in this brief for reasons of space) show a very similar pattern to the one presented by wages in nominal USD, hence the comment on their living conditions.

<sup>13</sup> Consisting of a regression using the log of hourly wages on a list of business practices controlling for firm size, sector and the HDI index of the country where they are based.

**Table 1. Business practices and relationship with average hourly wages (all sectors)**

(1) Item	(2) Factor description	(3) % change in hourly wages <sup>14</sup>
<b>Purchasing practices</b>	Full flexibility expected from suppliers	-5.95%
	Very inaccurate technical specifications	-21.91%
	Buyers agree to pay at least production costs	9.74%
	Imposing prices below the cost of production	-11.33%
<b>Market power</b>	Supplier only has 1 customer	-20.27%
<b>Labour relations</b>	Existence of a firm-level collective agreement	11.17%
	Existence of a workers' committee and a trade union	15.57%

Table 1 summarizes the relationships found<sup>15</sup> between purchasing practices, social dialogue and hourly wages; for all the factors the number in column 3 provides the changes in hourly wages associated with that factor being active/inactive. Table 1 shows that very inaccurate technical specifications from the buyer are associated with 22 per cent lower wages at the supplier level; suppliers who are bullied by their buyers to sell below cost pay 11 per cent lower wages; by contrast, buyers that offer prices covering at least production costs are associated with nearly 10 per cent higher wages at the supplier level. The existence of a firm-level collective agreement is associated with 11 per cent higher hourly wages and the presence of a trade union and a workers' committee with 15 per cent higher wages. The figure for the proportion of sales accounted for by the main buyer is also significant in the sense that a supplier going from an extremely diversified buyers' portfolio to a nearly unique buyer that takes nearly half of its production is associated with 20 per cent lower hourly wages, suggesting that some buyers may abuse their dominant position when they negotiate prices with their suppliers.

In addition, we found that the chemical industry pays the highest average hourly wages, 22 per cent higher than other manufacturing industries, such as garments, or the agricultural sector. Other findings from the analysis suggest that bigger suppliers pay lower hourly wages, which means that they have more negotiating power to impose lower wages to the workers.

The overall relationship between purchasing practices, social dialogue and hourly wages is summarized in Figure 26. This figure transforms the items shown in Table 1 into a good practices index with values between 0 and 1. For instance, an index equal to 1 would have all the factors listed in Table 1 turned to positive; for example, there would be a firm-level collective agreement and a workers' committee or trade union, very good technical specifications, buyers paying above production costs and a well-diversified clients' portfolio. On the contrary, a good practices index equal to 0 would mean that all the factors take their worst possible form; in other words, no trade union and no workers' committee, buyers pushing their suppliers to sell below cost, the existence of only one customer and so on. On the vertical axis we show the increase in workers' average hourly wages for a hypothetical supplier.

<sup>14</sup> Note that all the estimates shown in Table 1 are statistically significant, at least at the 90% confidence level.

<sup>15</sup> This analysis was carried out on a final number of 1,130 suppliers, corresponding to those questionnaires with the necessary amount of statistics and information.

**Figure 26. Good purchasing practices and hourly wages**

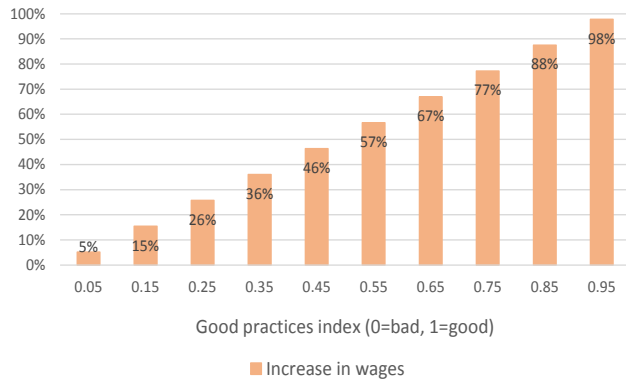
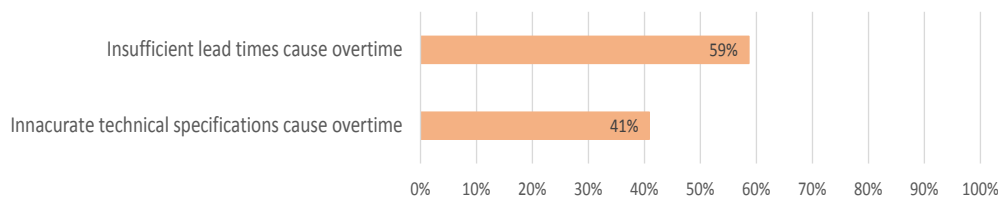


Figure 26 can be interpreted as presenting the maximum average hourly wages that could be obtained if business practices were to switch from the worst possible form to the best, and on the other hand, the lowest wage outcome in case of the accumulation of all bad practices (even if this is rarely the case – almost no supplier accumulates all poor practices in its relationship with its buyers). This graph provides conclusive evidence that purchasing practices can make a real difference with regard to wages at the end of global supply chains.

### 3.2 Purchasing practices and hours worked

Suppliers responding to our Global Survey also retained working hours –including overtime work– as one variable influenced by their business relationship with the buyers. Precisely, 41 per cent of suppliers reported that inaccurate technical specifications received from the buyers led to additional overtime. Similarly, more than half of them (59 per cent) also identified additional overtime as a direct consequence of insufficient lead times.

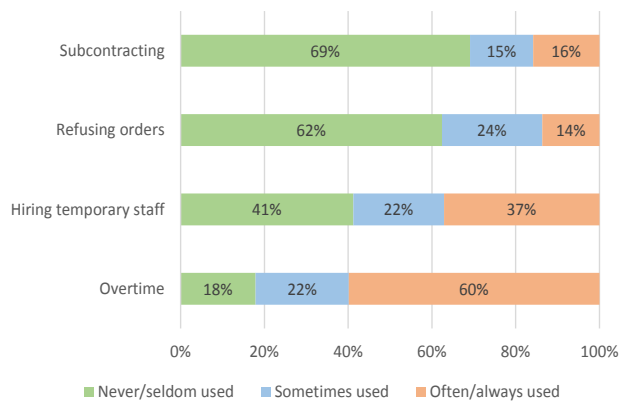
**Figure 27. Purchasing practices and effects on overtime (% of suppliers affected)**  
(What effects on overtime of insufficient lead times and inaccurate technical specifications?)



In addition, overtime is also one of the main ways suppliers deal with peak times and exceptionally busy periods (as shown in Figures 28 and 29). The prevalence of overtime as a way of coping with periods of high demand is particularly high in the computer and electronics industry (46 per cent of companies always use overtime) and even higher in the manufacture of electrical equipment (58 per cent).

**Figure 28. Suppliers' ways of coping with peak demand periods**

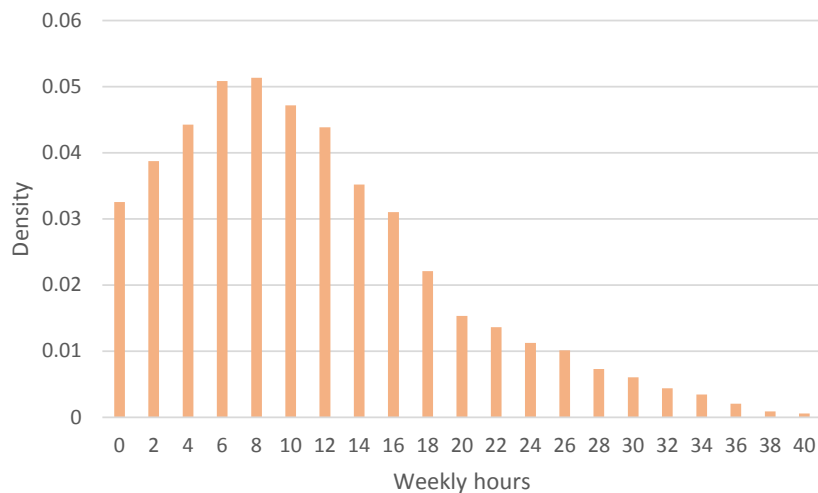
(Rate how often you use the following ways of dealing with periods of peak demand or changes in orders)



Because overtime work is the main way of coping with periods of peak demand, the number of hours worked often increases beyond legal or negotiated levels. For instance, the average weekly overtime in the sampled companies is double in China (14.5 hours) compared with Germany (7.8) or Finland (6). Figure 29 shows how overtime hours during peak times are distributed in the sample of our Global Survey suppliers; it can be seen that half of the workers, on average, work more than 9 overtime hours a week (9 was found to be the median).

**Figure 29. Suppliers' distribution of overtime hours at peak times**

(On average, how many overtime hours a week do workers perform at peak times?)



The existence of these peak demand periods is sometimes beyond the control of the supplier and might be due to excessive pressure on suppliers to deliver orders on time (as reported by Traidcraft, 2008). The same source also confirms our result that such overtime hours are generated by buyers' failure to provide sufficient lead times. In addition, a lack of social dialogue and workers' bargaining power could be another factor behind an excessive number of hours worked. In this respect, in only 36 per cent of the suppliers surveyed are workers closely involved in working time negotiations.



As we did for wages in Table 1, we also tried to identify whether the business practices presented in Section 2 have indeed had effects on the average number of working hours in GSC suppliers. The analysis performed on working time follows the same logic as applied in the analysis<sup>16</sup> on hourly wages by choosing key purchasing practices indicators. In particular, we include the percentage of orders with sufficient lead times in order to gauge the extent to which this variable may actually decrease overtime; the sales share of the main buyer captures, once again, the bargaining power of suppliers and the extent to which suppliers have to be flexible in response to buyers' demands, both of which can influence the degree of certainty over future orders and thus the number of hours worked. As for wages, we included social dialogue variables, represented by the existence of a firm/level collective bargaining agreement and the presence of a trade union and a workers' committee.

The results describing the relationship between the aforementioned indicators and the average number of hours worked are shown in Table 2, which highlights the most significant factors behind increases in working hours. Insufficient lead times are found to play a role because the difference between 'receiving all orders with sufficient lead time' and 'receiving less than half of orders with sufficient lead times' is found to generate an increase of nearly 3 per cent in the number of hours worked. The figure for the sales share of the main buyer is also found to lead to nearly 2 per cent increase in working hours (the result of a supplier shifting from an extremely diversified buyers' portfolio to a unique buyer taking most of its sales).

**Table 2. Business practices and relationship with weekly hours, all sectors, 2016**

(1) Item	(2) Factor description	(3) % change in hours worked <sup>17</sup>
<b>Purchasing practices</b>	Full flexibility expected from suppliers	1.61%
	Less than 50% of orders with sufficient lead times	2.74%
<b>Market power</b>	Supplier only has 1 customer	1.91%
<b>Labour relations</b>	Existence of a firm-level collective agreement	-2.33%
	Existence of a workers' committee and a trade union	-2.95%

The results also highlight that social dialogue matters because the existence of a firm-level collective agreement is associated with a decrease in working hours by 2.33 per cent, a similar result also being observed in relation to the presence of workers' representatives in the firm.

One of the most relevant findings in Table 2 concerns the relationship between insufficient lead times and hours worked; when converted into actual hours, the 2.74 per cent increase means that some<sup>18</sup> suppliers could be using approximately 250,000 unnecessary hours<sup>19</sup> of labour a year. Moreover, current (rather insufficient) lead times as reported by suppliers in our Global Survey imply that, on average, suppliers may be using more than 25,000 unnecessary hours of labour a year due to insufficient lead times, a number that could represent an obstacle to the suppliers' profitability and the efficiency of the whole supply chains.

<sup>16</sup> A linear regression was performed on the average number of hours worked as a function of purchasing practices, labour governance and controls for the sector, the HDI index of the country and firm size.

<sup>17</sup> Note that all the estimates shown in Table 2 are statistically significant, at least at the 90% confidence level.

<sup>18</sup> Those who endure insufficient lead times in more than 50% of their orders.

<sup>19</sup> Figure obtained by multiplying the average firm size (3,622 for firms with insufficient lead times in more than 50% of their orders) by the number of extra annual hours that having insufficient lead times on more than half of the orders could have caused per worker (approximately 70 per year).

Figure 30 summarizes the results obtained in Table 2 by putting together all explanatory factors in order to build an index between 0 and 1, where 0 means that all the practices listed in Table 2 take the worst possible form and 1 the best. For example, when the index is 0 a supplier would have insufficient lead times in more than half of the orders, would lack a firm-level collective agreement and workers' representation and would work with only one buyer. Likewise, when the index is 1 the supplier would have sufficient lead time, a trade union and a workers' committee and also a diversified range of buyers. The vertical axis of this graph shows the percentage change in average weekly working hours, with workers being able to experience a reduction of working hours up to 13 per cent if best practices were applied.

**Figure 30. Good purchasing practices index and weekly hours worked**



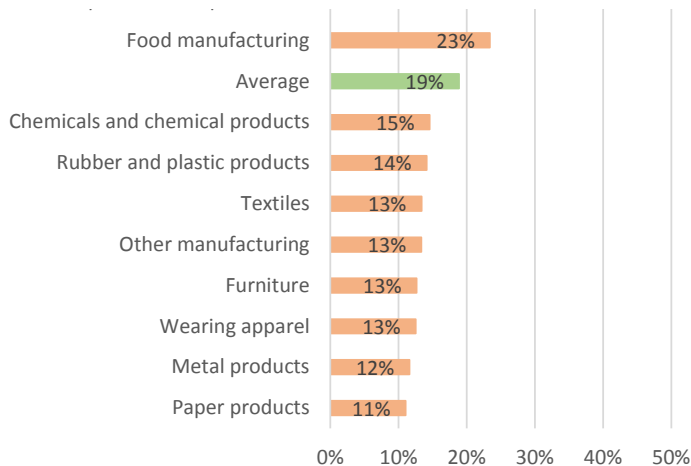
### 3.3 Purchasing practices and the use of temporary workers or outsourcing

The results of our Global Survey shows that suppliers adapt to peak times and unexpected delays (often caused by purchasing practices, as we saw above) not only through greater use of overtime hours –although this remains the most common way of coping with periods of high demand– but also by increasing the number of temporary workers and often outsourcing, a shift that is often associated with lower wages and worse working conditions.

#### Temporary workers

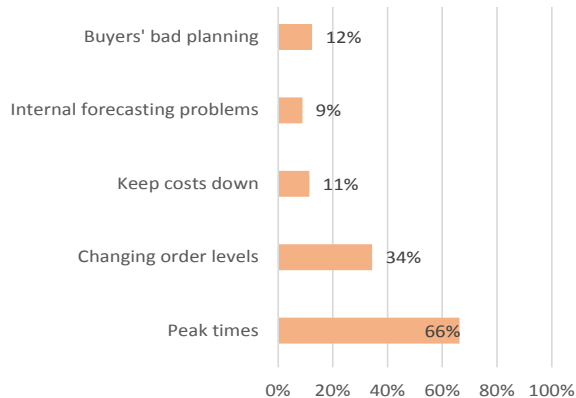
Temporary work adds a degree of uncertainty to workers' lives. In Figure 31 it is shown that, on average, almost 20 per cent of the suppliers' surveyed workforce is made up of temporary workers. Our Global Survey data reveal that the percentage of temporary workers is highest in the agricultural sector, which was found to employ almost half of its workers on a temporary basis. However, temporary employment contracts are a shared feature across all industries, as can be seen in Figure 31.

**Figure 31. Percentage of temporary workers**



When asked about the main reasons for using temporary workers, suppliers mainly pointed out the existence of peak times (for 66 per cent of them) or changes in order levels (34 per cent). While 9 per cent mentioned internal reasons, such as forecasting problems, other reasons may be directly related to the purchasing practices of buyers. We have examples indicating that sometimes buyers change orders, that then may come in very late (more than half of the suppliers interviewed in Phase 2 experienced changes in order specifications after agreement had already been reached). In addition, 12 per cent of the suppliers even reported buyers' bad planning as a direct reason behind their recourse to temporary workers. We have also seen that suppliers' pressure to keep production costs down was often imposed on the prices agreed with the buyers; in this respect 11 per cent of suppliers reported this as the main reason to employ temporary workers.

**Figure 32. Reasons behind suppliers' use of temporary workers**

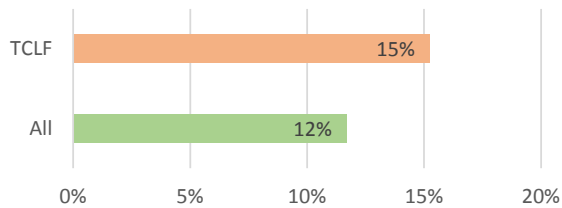


We also conducted an analysis to measure with even more accuracy the relationship between a number of purchasing practices and the proportion of temporary workers' hired by suppliers; this empirical evidence shows, first, that a buyer's dominant position is associated with a 23 per cent increase in temporary workers. In addition, imposing prices below the cost of production generates a 20 per cent increase in the number of temporary workers because it is a way to cut production costs. Interestingly, the growth of temporary work is very much related to the growth of outsourcing; we find that there is an increase of 4 per cent in the number of temporary workers for every 10 percentage points increase in outsourcing, a process that we further investigate below. Finally we should note that the use of temporary work is much higher in developing economies (20 per cent more temporary workers) and among small suppliers (10 per cent more temporary workers than in large suppliers).

### Outsourcing

Outsourcing might be a way for suppliers to get sub-contractors to produce parts of the goods that they may not have the time or the capacity to produce themselves. According to the empirical work carried out in this brief on wages and hours worked, outsourcing is generally associated with lower wages and longer workdays; this process could lead to the multiplication of sub-contractors (see ILO 2011) along global supply chains and lead to a race to the bottom in terms of wages and other working conditions. Outsourcing is also often associated to higher degrees of informal work.

**Figure 33. Percentage of outsourced production**



Even though some suppliers do not outsource their production at all, our Global Survey still found the average outsourcing percentage to be 12 per cent. This situation changes according to the country or sector in which suppliers operate. For instance, it can be seen in Figure 33 that garment manufacturers tend to outsource their production slightly more than the average (15 per cent of them). When looking by level of economic development, we also find that most developed economies outsource only 7 per cent of their production compared with 13 per cent of suppliers in the rest of the world; Turkey (20 per cent) and Bangladesh (15 per cent) are the countries with the highest percentage of outsourced production.

Our results also suggest that buyers' purchasing practices may influence the level of outsourcing. In particular, imposing prices below production costs and a weak bargaining position were found to be associated with a 16 per cent and a 30 per cent, respectively, increase in outsourced production. It is also significant that the level of outsourcing among suppliers that take care of their own R&D is 24 per cent lower, highlighting the positive role that suppliers' development of their own products can have on wages and working conditions across global supply chains. Other benefits from this can also be obtained by both suppliers and buyers, for instance in terms of the quality of products and reliability with regard to delivery and also a progressive shift to higher value added products.

#### **4. Conclusions on decent work and the internal functioning of global supply chains**

This extensive and unique Global Survey allowed us to investigate one area of global supply chains that has to date been relatively underexplored by the economic literature and empirical surveys. It helped to understand how business practices –and in particular, purchasing practices– used by the buyer can put pressure on suppliers in terms of timeline, prices and delivery, which can have direct effects on suppliers' capacity to provide decent wages and working conditions. We saw, for instance, that agreeing on prices that are below production costs puts the suppliers in a difficult situation with regard to paying wages, improving working conditions, and use of only declared work, and can thus even put them at high risk of bankruptcy. A low willingness –and in any case after weeks of delay– to incorporate recent increases in the legal minimum wage into the prices agreed with their suppliers may also reduce the possible margins for suppliers, and thus also impact wages and working conditions, and extend informal work.

Similarly, our study confirmed that insufficient lead times and also inaccurate technical specifications provided by the brands directly lead to lower wages and an increased number of overtime hours. In other cases, suppliers may have recourse to outsourcing, with wages and working conditions also further deteriorating along this extended chain of sub-contractors. While the presence of a code of conduct can of course help in promoting better working conditions, we also found that buyers do not always accompany such standards with support and financial assistance, adding further pressure –on top of the purchasing practices mentioned above– to the suppliers' margins. This Global Survey also provides information on the positive role that social dialogue seems to play in global supply chains in

the form of higher wages and a lower number of hours worked. This result should also induce all actors in global supply chains –such as suppliers, brands and also governments as promoters of institutions– to encourage social dialogue mechanisms at supplier level.

This Global Survey helps us to better understand the internal functioning of global supply chains and to highlight that the relationship between brands and their suppliers help to explain wages and working conditions at the end of the supply chains in terms of the high number of working hours, stressful working rhythms and also low wages. We hope that this type of evidence will help in reconsidering all steps and actors' behaviour along global supply chains, and lead to a more multi-level analysis and initiatives –that is, not confined to the suppliers' level– to identify the root causes and thus to choose the adequate responses to poor wages and working conditions at the end of supply chains. This study should be complemented by more empirical evidence to help further identify what purchasing practices might be modified, especially in terms of pricing, to positively influence particular elements of the world of work and more generally to promote decent work in global supply chains.





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Further information:

Inclusive Labour Markets, Labour Relations and  
Working Conditions Branch (INWORK)  
International Labour Office  
4, route des Morillons  
CH-1211 Geneva 22,  
Switzerland

Tel: +41 22 799 6754  
Fax: +41 22 799 8451  
E-mail: [inwork@ilo.org](mailto:inwork@ilo.org)  
[www.ilo.org/inwork](http://www.ilo.org/inwork)

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