Globalization and working conditions in international supply chains

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Abstract

The discussion about globalization has included the topic of working conditions in international supply chains for many years. In this context, the International Labour Organization (ILO) has focused on Special Economic Zones (SEZ), especially, the so-called Export Processing Zones (EPZ). It is common for developing countries to attract investors by offering special framework conditions, for example, the granting of tax holidays and the repeal of national labour protection laws (in cases where such laws exist). In recognition of this practice, many years ago the ILO developed compliance guidelines on “decent work.” In this paper, Juan Carlos Hiba addresses this issue from the ILO’s perspective. Marina Jentsch discusses why the topic is still relevant by comparing developments (or lack thereof) in recent years and uses data from the textile industry to illustrate certain points. The World Trade Organization (WTO) and some regional trade agreements increasingly show a trend to restrict the use of subsidies and countervailing measures and provide rules addressing the special treatment of free trade zones and their incentive systems. In the final section, Klaus J. Zink discusses the future of these zones in light of the increasing criticism levelled at the ecological impacts of production and the working and living conditions of workers.

Practical relevance: The German and European planning underway for a Law on Corporate Due Diligence in Supply Chains clearly demands a better understanding of this topic.

Keywords Global supply chain (GSC) · Working conditions · Decent work · Special economic zones

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Globalisierung und Arbeitsbedingungen in internationalen Beschaffungsketten

Zusammenfassung

Globalisierung und Arbeitsbedingungen in globalen Wertschöpfungsketten sind schon seit vielen Jahren ein Thema – insbesondere auch der International Labour Organization (ILO). Von besonderem Interesse sind in diesem Kontext die sogenannten Export Processing Zones (EPZ). In diesen Sonderwirtschaftszonen vor allem in Entwicklungsländern gelten besondere Rahmenbedingungen, die Investoren anziehen sollen. Dazu zählen z. B. Steuerbefreiungen, aber manchmal auch die Niegierung von Arbeitsschutzgesetzen. Daher hat die ILO schon vor vielen Jahren die Einhaltung der Bedingungen für „decent work“ gefordert. Juan Carlos Hiba behandelt diese Problematik aus der Perspektive der ILO und deren Initiativen. Marina Jentsch stellt die nach wie vor existierende Relevanz der Thematik durch den Vergleich der (teilweise nicht vorhandenen) Entwicklung in den letzten Jahren dar. Beispielhaft sollen dazu die Daten der Textilindustrie herangezogen werden. Die Regeln der Welthandelsorganisation (WTO) im Hinblick auf das Verbot von Subventionen und Kompensationsmaßnahmen, aber auch regionale Handelsabkommen schränken die Sonderstellung der Freihandelszonen bezüglich ihrer Anreizsysteme ab einer bestimmten Größe immer mehr ein. Darüber hinaus verstärkt sich die Kritik an den Arbeits- und Lebensbedingungen der Mitarbeiter sowie ggf. an den ökologischen Auswirkungen der Produktion. Daher diskutiert Klaus J. Zink die Zukunft dieser Zonen.

Praktische Relevanz: Die geplanten Gesetze über die unternehmerischen Sorgfaltspflichten in Lieferketten (Lieferketten-gesetze) auf deutscher und europäischer Ebene machen es erforderlich, sich mit diesem Thema zu beschäftigen.

Schlüsselwörter Globale Lieferketten · Arbeitsbedingungen · Decent work · Sonderwirtschaftszonen

1 Globalization and working conditions from an ILO perspective (J.C. Hiba)

Globalization as a cross-border phenomenon to expand commercial markets has been around for several centuries. Several authors (i.e., Beck 1997; Stiglitz 2002) have offered definitions, analyses, and criticisms aimed at facilitating a better understanding and ultimately, procedures to monitor and control this development. Many economic experts have analysed the phenomena to explain the benefits and highlight its achievements, while others have exposed the economic, social, and labour consequences to justify the establishment of limits in a governed and regulated manner (Martínez & Vega Ruiz 2002). Some international institutions have even warned against globalization (Schmukler 2004). Strategy discussions in the tripartite U.N. agency advocate for the design of social and governmental barriers to protect the workforce in industrially developing countries (Hansenne 1999).

Irrespective of these efforts to promote governmental policies, the globalization phenomenon continues to expand and occupy physical spaces, while advancing a colonizing mentality and mobilizing large investments throughout the world that generate enormous wealth for small groups (Stiglitz 2012). Simultaneously, new information and communication technologies are fuelling the digital transformation that is changing the traditional modes of production and leading to new business models and new forms of dependent work. Globalization is a force that is drastically shaping the work life of hundreds of millions of workers in

addition to impacting the health and daily lives of hundreds of millions of people.

The world of work is suffering from the accelerating pace of change that accompanies this force. The impacts from a century of transformative megatrends and the evolving globalization of economies are many and varied. The unstoppable development of cutting-edge technologies, rapid evolution of transnational business models, innovative productive processes, and new types of jobs with new Occupational Health and Safety (OHS) risks lead to different and—all too often—worse working conditions. Nature multiplies those man-made impacts in the form of climate change and, as of 2020, the ongoing COVID-19 pandemic.

The International Labour Organization was founded at the beginning of 20th century to advocate for decent work for all people. The ILO preceded the United Nations by several decades and is the only tripartite U.N. agency today. Since 1919, government, business, and worker representatives from 187 member states have met at this organization to set labour standards, develop policy, and devise technical cooperation programs under the motto: “Advancing social justice and promoting decent work.” The main aims of the ILO are to promote worker’s rights, encourage decent job opportunities, enhance social protection, and strengthen debate on work-related issues.

Throughout its first institutional centenary, the ILO has created technical and advisory services that produced a set of international labour standards and coined several key concepts and training approaches for the world of work that have been disseminated among its constituents.

An important concept in the context of ergonomics is the relationship of “working conditions and environment” (ILO 1975). An institutional development study was approved by the Governing Body in 1975 and later launched as the International Program on Working Conditions and Environment (PIACT, from its acronym in French). Section E of the document provides for “the preparation and publication of guides, codes, and educational material on safety and hygiene, working hours, work organization, work content, and ergonomics.” The first ILO publication introducing this topic was “Introduction to working conditions and environment” edited by J.M. Clerc in 1985 (Clerc 1985).

In the vast majority of industrially developing countries, because of the impact of globalization and the lack of equal opportunity for a good working life, the need to bring together fundamental principles and worker rights is evident. The ILO coined an essential formula for the world of work—the “decent work concept” that was subsequently developed and introduced by Juan Somavía (ILO 1999). In his words, decent work is defined as the convergence of four interdependent strategic objectives encompassing rights at work, employment, social protection, and social dialog (ILO 1999). A globally oriented action program dealing with decent work titled “Reducing the decent work deficit: A global challenge” (ILO 2001) was launched in the Report of the Director General to the International Labour Conference 98th session in 2001.

The ILO systematically advocates for a process of globalization that is inclusive, democratically governed, and provides opportunities and tangible benefits for the people of all countries. The Governing Body of the ILO furthered an initiative of the UN’s Director General when it established the World Commission on the Social Dimension of Globalization in February 2002 (ILO 2002). This initiative is a response to the fact that no institution within the multilateral system existed that adequately and comprehensively covered the social dimension of the various aspects of globalization.

The ILO presented a vision of globalization in the “Declaration on Social Justice for a Fair Globalization” (ILO 2008). An analysis by leading academic experts of the various channels by which globalization can affect jobs and wages was published in 2011 with the title “Making Globalization Socially Sustainable” (ILO 2011).

For several decades, industrially developing countries have relied on historical examples for sources of job creation and adopted policies that promote foreign direct investment and the export trade. Through specific legislation, territories are created for foreign business operations and promoted as special merchandise export zones. In these limited territories, inputs and exports are exempt from tariffs, which in effect gives producers access to resources at global prices, enhancing their own competitiveness in

global markets. This is a very important business model and is implemented in developed countries worldwide. According to the ILO, there were 3500 EPZs (or similar zones classified under some 20 different types and names) in 2006. This number, however, excluded 5341 single-factory EPZs in Bangladesh (ILO 2017). By 2015, more than 4500 EPZs had been created according to a United Nations Conference on Trade and Development (UNCTAD) estimate—over 3000 more than the number 20 years earlier (UNCTAD 2015).

The ILO proposes that the internationalization of economies and production needs to be studied from a broad perspective of respecting certain fundamental principles of worker’s rights. The focus must be on three key components: freedom of association and collective bargaining, forced labour, and discrimination. The following elements are critical under the concept of decent work: job security, skills development, wages, occupational safety and health, hours of work, social protections, labour inspections, and social dialog. After focusing on the impact of EPZs on Occupational Health and Safety (OHS), Loewenson (2001) reports:

EPZs are associated with high levels of machine-related accidents, pollutants, noise, poor ventilation, and exposure to toxic chemicals. Job stress levels are also high, which further adds to the risk. Reports indicate that accidents, stress, and intense exposure to common hazards are the result of unrealistic production quotas, productivity incentives, and inadequate controls on overtime. These factors create additional pressures on highly stressful work, resulting in cardiovascular and psychological disorders. Young women who often work in EPZs experience stress that can affect reproductive health, increased risk of miscarriage, problems with pregnancies, and poor pre-natal healthcare (Loewenson 2001).

The 2016 International Labour Conference Report on decent work defines GSCs (global supply chains) as “... the cross-border organization of activities required to produce goods or services and bring them to consumers through inputs at various phases of development, production, and delivery” (ILO 2016). The report starts by pointing out that “global supply chains have become a common way of organizing investment, production, and trade in the global economy”.

Many countries, particularly developing countries, have created jobs and opportunities for economic and social development. However, evidence shows that in the global economy, including in some global supply chains, the dynamics of production and employment relations can have a negative impact on working conditions. The ILO recently published “Decent work in a globalized economy: Lessons

from private and public initiatives”, a review of the current developments in corporate governance in global supply chains. The report presents several in-depth case studies that analyse public, private, and hybrid governance arrangements (ILO 2021).

Historically, monitoring and control of the quality of working life has been the responsibility of labour inspection services. These services have a national or regional scope, depending on the organizational structure adopted in each country. The globalization of business and the internationalization of companies requires a new look at labour surveillance processes and new approaches to inspections. The traditional inspection services are challenged by the new, non-traditional forms of work, including the changes brought about by new information and communication technologies (ICT), process automation, robotics, and other new developments in the field materials and chemical products.

Based on the corporate social responsibility and joint agreements among companies of recent decades, various models of compliance and corporate governance have appeared. In some countries, particularly, those with highly or fairly well-developed unions, there is increasing union surveillance of occupational health and safety issues in work and environmental conditions. This is mainly seen in the labour unions of traditional industries such as steel and also in freight forwarding and education. In light of the new global business models, according to ILO, “... many scholars consider the world of work as entering a new phase characterized by ‘hybridization’ of regulatory modes and mechanisms, that combines public and private actors and initiatives alongside of traditional international labour law” (ILO 2016). Decent work is included in the UN’s Sustainable Development Goals (UN General Assembly 2015), but it has not yet been realized, as shown in the ILO’s report of the Global Commission on the Future of Work (ILO 2019).

2 The (continuing) need to improve working conditions in global supply chains—the case of the textile industry (M. Jentsch)

The labour-intensive manufacture of textiles has shifted to low-income countries and this has the potential to impact the populations of these poorest regions of the world in a positive way. However, the continuing flood of negative headlines exposing human rights violations, hazardous working conditions, and severe accidents is disturbing and far outweighs any reporting of positive effects. The vision expressed in Goal 8 of the UN Agenda 2030 for Sustainable Development (UN General Assembly 2015) includes “a world in which every country enjoys sustained, inclusive, sustainable economic growth and decent work for all” remains just that—a vision.

In 2013, the collapse of the Rana Plaza building in Dhaka, Bangladesh focused the attention of the world’s consumers on working conditions around the world. Unfortunately, the deadliest accident in the history of apparel industry did not lead to any significant change or the required improvements. Instead, a negative development is taking place at the present time in some areas. The latest ITUC Global Rights Index for 2020 even refers to “the breakdown of the social contract” and cites examples of the alarming number of workers’ rights violations, which has increased in the last seven years (ITUC 2020).

The apparel industry provides the most vivid examples of grievous working conditions, which is partially explained by the nature of the work force and the absence of local labour laws in low-income countries. The work force is majority female, young, and poorly educated—a vulnerable group with little bargaining power (Khurana and Ricchetti 2016). Similarly vulnerable workers are found all along the textile supply chain, starting with the cotton plantations.

After the collapse of Rana Plaza, buyers started to pay more attention to working conditions or joined with other stakeholders in initiatives to work on addressing this topic. Some improvements in fire and building safety were actually implemented with the Accord on Fire and Building Safety, which was created in Bangladesh in 2013 and signed by many western apparel companies (Teipen and Mehl 2021). Still, countless suppliers have not implemented even the most basic measures like installing fire exits. The situation is especially problematic at smaller or unregistered subcontractors where most grievances take place (Woolside and Fine 2019). An analysis of the apparel industry reveals the many negative social effects and shows that it is critical for buyer organizations to track their suppliers and account for all the different production stages—from cotton and synthetic fibre production and processing, to the conditions at clothing factories. The list of grievances throughout the supply chain is long, ranging from the suppression of bargaining power to child labour and modern slavery.

The weak bargaining power of textile workers leaves them especially vulnerable to unfair practices (Khurana and Ricchetti 2016). The attempts by workers to organize or join unions are blocked and involvement in protests has consequences for participants. An example of such repressive practices is the large-scale dismissals and criminal charges seen in Bangladesh in 2018 and 2019 when workers organized strikes and protested for better wages. Charges were also filed against 3000 unknown people, which is a common practice of oppression in Bangladesh, threatening every worker with arrest and spreading fear of retaliation. Unions are already forbidden in EPZs and this policy is also enforced in newly created SEZs and applies to millions of workers. The situation is expected to get worse

(ITUC 2020) as the rights of workers to a healthy and safe workplace and a fair wage continue to be suppressed.

Health hazards in the textile industry exist from job contact with harmful substances and the absence of basic health and safety measures. Pesticides used in cotton production present a serious health hazard. The World Health Organization (WHO) estimates that 25 thousand people suffer yearly from the effects of poisoning. Workers engaged in the textile manufacturing processes (pre-treatment, dyeing, spinning, and weaving) are exposed to hazardous dyes and other chemicals harmful to their health. Protective clothing and adequate ventilation systems are rare. Furthermore, workers who contract an illness fear termination and poverty if they must take sick leave (Hilbig et al. 2016).

The systematic neglect of health and safety regulations in textile factories has led to a range of serious accidents and the deaths of thousands of workers. The global organization Clean Clothes Campaign has compiled a list of examples of irresponsible management that ended in tragedy (2021). For example, the structural cracks in the Rana Plaza building were already known at the time of disaster. Despite warnings, factory owners refused to halt production and 1133 people died. In 2012, factory fires in the Tazreen fashion factory in Bangladesh and Ali Enterprises in Pakistan caused the death of 112 and 250 people, respectively. When the fires broke out, workers in both factories were trapped inside the burning building as the exits to the outside were locked.

Workplace harassment is widespread in the clothing industry. A survey conducted in Mexico, Sri Lanka, China and Cambodia in 2017–2018 documented reported cases: emotional abuse was reported by between 10% and 33% of workers; 9% experienced sexual harassment at the workplace, and 15% reported that they had witnessed it in their factories. The study showed the consequences of workplace harassment were increases in absenteeism and the number of limited ability and lost workdays, lower motivation and job satisfaction, and fewer self-reported incidents (Węziak-Białowolska et al. 2020).

Wages of textile workers in low-income countries do not cover living expenses (Clean Clothes Campaign 2020), despite the fact that the UN declared a living wage to be a human right. A multi-regional input-output analysis of the clothing industry by Mair et al. (2016) revealed an enormous difference between wage rates in BRIC and those in Western Europe. The report describes the relationship between the consumers (the West) and producers (BRIC) as a “master/servant” relationship. The low wages of the servant nations enable the lifestyles of the wealthy master nations, which contradicts the sustainability concept of intra-generational equity.

Non-governmental organizations express it in the clearest of terms: our global economic system is based on ex-

ploitation. The correlation between the price of goods and the hourly wage decreased during the last decades, not only as a result of automation in the production, but mainly because of globalization and the shift of production to low-income countries. While consumption is constantly increasing, poor health and safety conditions remain common and the wages being paid in the textile industry remain insufficient, even with 70–80h work weeks being quite common (Hilbig et al. 2016).

Mair et al. (2016) propose that Western European brands contribute to the well-being of workers by enforcing higher wages in their supply chains. Sadly, however, a shift of clothing production from BRIC to even lower wage nations is currently being observed.

Child labour is still an issue for the industry, especially, in cotton production. Estimates state that of the 300 million workers employed in cotton production, roughly one million are children. They are forced by various means to work instead of going to school. In India, for example, children have to provide income for the families, without which they could not survive. In Uzbekistan, large plantations employ children with the support of the state which closes schools at harvest time (Hilbig et al. 2016).

Modern slavery in the apparel industry exists in various forms throughout the world. During harvest time in Turkmenistan, for example, people are actually forced to work under threat of penalty (Hilbig et al. 2016). In India, parents sign long-term labour contracts with firms for their daughters. Only part of the wage is paid at the beginning, with the major share coming at the end of the contract period. In this way, daughters earn their own dowry. These so called “Sumangali contracts” (sumangali is translated as “a happy bride”) often lead to severe exploitation of young women as they take home extremely low wages (about 20 Euros per month) while working excessive overtime. Twelve-hour workdays, seven days a week without any vacation time is a widespread situation (Hilbig et al. 2016). Another example is Vietnam, where workers are under pressure to work massive overtime. The organization Better Work Vietnam reports that 80% of its partner factories have continually violated the statutory working hours in the last ten years (Chi 2021).

From the very beginning of globalization, various actors such as trade unions, consumer groups, purchasing companies, governments, NGOs and intragovernmental agencies have viewed improving working conditions as a matter of great importance. As a result, a myriad of scientific papers have been published, and a range of laws, supporting guidelines, management systems, and frameworks have been enacted. Other industrial sectors have faced similar problems, which makes it all the more unacceptable that such inhumane working conditions continue in the apparel industry. Although some improvements have been made,

the producing countries still have a considerable need for social upgrades (Chi 2021; Teipen and Mehl 2021). An important step would be to strengthen the bargaining power of workers and stop, as stated above, the worldwide decline currently being observed.

Globalization and digitalization have enabled new forms of distributed and remote knowledge work. This spatial “unfixing” of workplace leads to a rapid rise of digital labour platforms and gig work around the world, especially in the low-income countries that fill on-demand orders from the Global North (Graham et al. 2017). Although gig workers may be better educated than other workers in apparel supply chains, their bargaining power is also held down by outside regulation minimizing their voices (i.e., they are legally classified as independent contractors and not as employees). Although the gig economy has the potential to upgrade the status of the world’s poorest, they are still faced with poor working conditions, for example, low pay, social isolation, unsocial and irregular hours, overwork, sleep deprivation, and exhaustion (Wood et al. 2019). There is every reason to assume the further expansion of digital work, which makes it essential to implement mechanisms and strategies that support social upgrading and decent work in this emerging field.

3 The future of Export Processing Zones (EPZs) (K.J. Zink)

For quite some time, export processing zones have been under increasing pressures from the World Trade Organization (WTO) (for example, the Agreement on Subsidies and Countervailing Measures) and other Regional Trade Agreements (RTAs) because of the practice of using “traditional” incentive systems (subsidies and countervailing measures). These agreements target such financial incentive systems and prohibit or link them to the development level of the respective state. The working conditions in EPZs are also increasingly coming under public scrutiny, creating a problem for these states. The question arises as to what extent this helps or hurts the more than 4000 EPZs worldwide as they strive to develop and remain competitive. The United Nations Conference on Trade and Development (UNCTAD) analysed 100 EPZs on the status of their contribution to sustainable development in the context of the Sustainable Development Goals (SDGs) and UNCTAD’s Investment Policy Framework for Sustainable Development. The result shows that most EPZs do not promote the environmental and social aspects of these goals (UNCTAD 2015). (Fig. 1).

UNCTAD believes that EPZs are faced with a strategic challenge: to become champions of sustainable business, they must switch from a narrow focus on cost advantages and lower standards. EPZs gain a competitive advantage when they promote the classic commercial benefits

Fig. 1 Role of environmental and social aspects in EPZs (UNCTAD 2015)

Abb. 1 Rolle von Umwelt- und Sozialaspekten in EPZ (UNCTAD 2015)

Fig. 2 A Framework for Sustainable EPZs (UNCTAD 2015)
Abb. 2 Rahmen für nachhaltige EPZ (UNCTAD 2015)

	Policies/Standards	Infrastructure assistance	Administrative assistance
General Approach	Create multi-stakeholder partnerships to identify opportunities and develop an action plan		
	Maintains and enforces policies and standards, including:	Provides services or specialists to insure compliance/offer assistance, including:	Provides guidance and training to companies, covering how to:
Labour	<ul style="list-style-type: none"> • minimum wage • working hours and benefits • respecting right of unions to be active within the zone • gender equality and related issues • incentives for third-party certifications 	<ul style="list-style-type: none"> • labour inspectors • conflict resolution specialists • reporting hotlines • gender focal points 	<ul style="list-style-type: none"> • improve labour conditions • engage in social dialogue
Environment	<ul style="list-style-type: none"> • emissions • waste disposal • energy use • incentives for third-party certifications • promoting circular economy 	<ul style="list-style-type: none"> • centralized effluent treatment • water reclamation systems • recycling services • hazardous waste management services • alternative energy sources • reporting hotlines • enabling circular economy 	<ul style="list-style-type: none"> • further reduce natural resource use • reduce waste • increase recycling • improve energy efficiency • adopt renewable energy
Health & Safety	<ul style="list-style-type: none"> • employee health and safety protection • incentives for third-party certifications 	<ul style="list-style-type: none"> • medical clinic • fire brigade • reporting hotlines 	<ul style="list-style-type: none"> • prevent health and safety emergencies
Corruption	<ul style="list-style-type: none"> • anti-corruption standards and policies 	<ul style="list-style-type: none"> • hotlines • information on reporting corruption 	<ul style="list-style-type: none"> • build capacity to detect and avoid corrupt business practices
Economic Linkages	<ul style="list-style-type: none"> • employer support for staff training and development 	<ul style="list-style-type: none"> • assistance with local sourcing 	<ul style="list-style-type: none"> • identify and upgrade local suppliers

(like modern infrastructure and expedited permitting), but they can also benefit by providing cost-effective support for good environmental and social practices for firms operating within their boundaries (UNCTAD 2015). EPZ management agencies must develop services that help firms comply with international Corporate Social Responsibility (CSR) standards using cost-effective means. Currently, however, most EPZ management agencies are not prepared for this new competitive approach. Governments can promote competitiveness by enabling efficient performance of all indicators related to business success, including economic, social, and environmental issues. EPZs, in this sense, could support sustainable development in the industrially developing

regions (UNCTAD 2015). To assist, UNCTAD proposed the Framework for Sustainable Economic Zones shown in Fig. 2.

In addition to the United Nations Conference on Trade and Development (UNCTAD), the World Free Zones Organization (World FZO) has also developed a concept for a “Free Zone of the Future.” According to the World FZO, free zones have an inherent obligation to deliver prosperity to their people and the organization proposes the creation of free zones that are commercially successful and built on international best practices, economic sustainability, and transparency (World FZO 2018). To achieve this goal, the World FZO has developed the so-called IZDIHAR INDEX.

Fig. 3 Izdihar Index Framework (World FZO 2018)
Abb. 3 Rahmen des Izdihar Index (World FZO 2018)

This is essentially a roadmap for a maturity model of operationalization. In its breadth and structure, the model is reminiscent of the business excellence model of the European Foundation for Quality Management (EFQM) (EFQM 2019). The Izdihar Index consists of four pillars, each further described by sub-categories. The structure of the framework is shown in Fig. 3 (World FZO 2018).

The sub-category “Good Place to Work” is of particular interest to this article. It specifies the following “Areas to Address” (World FZO 2018):

- Policy: Set up policies that address equal opportunity, a code of ethics, employee rights, and employee medical care.
- Communication: Communication by means of employee appraisals of motivation/involvement/transparency/freedom of opinion, and job satisfaction.
- Employee rights (fairness, security, wages): Handle employee complaints/grievances/freedom of religion/transparency/diversity; ensure job security, secured living, safe working environment; maintain fair pay, benefits, conduct benchmarking, and monitor recruitment process; achieve gender equality and empower women at work.
- Infrastructure: Provide suitable employee accommodation, offices, facilities, transport, and safety. Improve communication with employees through employees appraisal/motivation/involvement/transparency/freedom.
- People Engagement: Conduct regular employee surveys to monitor and measure productivity at all levels; monitor trends, set targets, and take corrective actions; conduct more awareness sessions related to satisfaction and engagement.

From a human factors/ergonomics perspective, the implementation of all these criteria would certainly be welcome. These areas are to be monitored and measured through performance indicators and stakeholder perception. The index is non-prescriptive and acknowledges the fact that there are several possible approaches for achieving maturity (World FZO 2018).

The client assessment of the content of the concept naturally raises the question of what is to be gained by awarding contracts in such a “free zone of the future.” It remains to be seen whether this concept has the potential to become established on a large scale.

4 Summary

In observing global supply chains and the development of EPZs, improvements in working conditions are seldom seen on more than a case-by-case basis. However, the pressure is increasing on companies to improve the working con-

ditions along their entire supply chains as a result of the growing awareness of and discussions about CSR. Both the Federal Republic of Germany and the European Union are establishing a legal framework called “Law on Corporate Due Diligence in Supply Chains” (see Heinen, in this issue). The role of Human Factors/Ergonomics in this context is also discussed later in this issue (see Zink, Schmauder, Bengler).

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