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Towards sustainable labour costing in UK fashion retail

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February 2013

Working Paper 14

'In all buying, consider first, what condition of existence you cause in the production of what you buy; secondly, whether the sum you have paid is just to the producer, and in due proportion lodged in his hand.' Ruskin (1860)

Abstract

This paper focuses on a specific feature of buying behaviour in the UK fashion retail industry: the negotiation of a manufacturing price (cut-make-trim, CMT, cost) with suppliers that does not separately itemize labour cost. This practice, tacitly supported by both buyers and suppliers, is examined against the backdrop of ongoing wage defaulting and import price deflation in the global apparel industry. While wage non-compliance cannot be explained solely by this buying practice, since other commercial practices and factors may have an equal if not greater impact on a supplier's liquidity/ability to pay on time and in full, the case is nevertheless made that an absence of labour costing must inevitably have an effect on the capacity of a factory to deliver an order at a negotiated price and to meet compliance benchmarks at the same time. The paper attempts to construct a formula for sustainable labour pricing at the buyer end using industrial engineering principles that appear to have been lost in the truncation of buying firms caused by international sourcing. The methodology, which can be used to calculate a living wage, has implications for international buying practice and for organized labour in the international global apparel industry and has the potential to accelerate a trend already underway in the sector towards greater consolidation and collaboration between buyers and suppliers in the manufacture of apparel.

Keywords: Buying practices, living wage, labour costing, efficiency, standard minute values, freedom of association

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Note on research methods and acknowledgements

Researching in the area of purchasing practices is fraught with difficulty, since the investigator is venturing into what for companies is generally considered a strictly 'no go' area. A small-scale survey was undertaken with a number of high street fashion companies to determine their current practice in costing labour in price negotiations with suppliers. Corporate social responsibility (CSR) staff were sent the survey questionnaire, and in some cases there was a follow-up telephone interview. More qualitative data were acquired from leading experts in the sector and some former practitioners (buyers).

The researcher is greatly indebted to General Sewing Data (GSD), in particular Managing Director Paul Timson and Operations Manager John Dutton, for their assistance and data on standard minute values on particular garments. Without their calculations, development of the model would not have been possible.

Thanks are also owed to Mike Flanagan of Clothesource, who provided data on prices and trends on imports into the European Union (EU) on selected garment categories, and also critical comments on the draft.

Since factory data are similarly difficult to come by, the study was greatly enhanced by work undertaken in Cambodia by Nathan Associates and Werner International in 2007 to investigate and determine true labour cost and productivity from a value chain perspective.

This report draws some tentative conclusions on questions that require much more in-depth study and piloting. It is hoped that it will be able to provoke a debate and some guidance for retailers to re-evaluate their costing practices.

In addition, the author would like to thank the following individuals for their assistance in researching for this report: David Birnbaum, Jean Jenkins, Jennifer Moore, Sean Chiles, Razaul Karim Bhuiyan, Auret van Heerden, Andre Kriel, Steve Grinter, Ashling Seely, Ken Loo, Derek Boyden, Derek Cattell, Klaus Priegnitz, Hans Wettengl, Edgar Romney and those company representatives who provided information on their costing practices.

Abbreviations

AFW	Asia Floor Wage
CIF	Carriage Insurance Freight
CM	Cut Make
CMT	Cut Make Trim
CPRC	Chronic Poverty Research Centre
CSR	Corporate Social Responsibility
DFID	UK Department for International Development
ESRC	Economic and Social Research Council
ETI	Ethical Trading Initiative
EU	European Union
FOB	Freight on Board
GSD	General Sewing Data
HS	Harmonized System
ILO	International Labour Organization
ITGLWF	International Textile Garment and Leather Workers Federation
LDP	Landed Duty Paid
MODAPTS	Modular Arrangement of Predetermined Time Standards
MTM	Methods Time Measurement
PMTS	Predetermined Motion Time Systems
PTS	Predetermined Time Standards
SAMs	Standard Allowed Minutes
SCI	Sustainable Consumption Institute
SMEs	Small and Medium-sized Enterprises
SMV	Standard Minute Value
SOMO	Centre for Research on Multinational Corporations
UK	United Kingdom
US	United States
USAID	US Agency for International Development
VAT	Value-added Tax
VE	Virtual Environment

Introduction

In recent years, campaign groups have focused specifically on the issue of a living wage for apparel workers worldwide. The Bargaining for a Living Wage campaign is an ongoing priority of the International Textile Garment and Leather Workers' Federation (ITGLWF 2009). Similarly, partner organizations of the Clean Clothes Campaign have launched the Asia Floor Wage (AFW) initiative (Merk 2009), and a living wage is a centrepiece of the United Students Against Sweatshops Designated Supplier Program[1] and Playfair's 2008 campaign in sportswear.[2] In the UK, the annual 'Let's Clean up Fashion' report of Labour Behind the Label, focusing on high street fashion (Labour Behind the Label 2006, 2007, 2008, 2009),[3] and the periodic War on Want exposés of wage levels in Bangladesh (War on Want 2008, 2009) continue to remind the public of the issue of poverty wages in many parts of the apparel sector today.

Yet the focus on 'living wage', as just a cause as it may be, turns attention away from the equally chronic and more immediate issue of wage non-compliance in the industry. This problem is endemic in both buying and supplying countries. In the US, 'wage theft', as some have termed it (Bobo 2008; Dirnbach 2009; Worker Rights Consortium 2010), has taken on chronic proportions, with 43 percent of apparel workers in what is left of one particular industry particularly affected by underpayment of the legal minimum wage, and 71 percent by non-payment of overtime (Bernhardt et al. 2008). The situation is mirrored in the supply chains of Asia, North Africa, Central America and Central and Eastern Europe. A recent survey drawing on audit data provided by the US-based multi-stakeholder initiative the Fair Labor Association revealed that 58 percent of the supplier facilities audited were underpaying wages and 68 percent reported difficulties in paying overtime (Vaughan-Whitehead 2010). Similarly, the UK's Ethical Trading Initiative (ETI) reported in 2009 that 48 percent of members' manufacturing sites were non-compliant with regard to the amount of due pay workers received (Ergon Associates 2009).

Wage defaulting can take on a number of forms and has a number of causes, ranging from exploitative buying practices on the part of sourcing companies (Impactt/Traidcraft 2009) to fraudulent and manipulative conduct on the part of the suppliers themselves (Dirnbach 2010). Central to the demands of the campaign groups, however, is the need for a concerted effort by sourcing companies to address the issue of pricing, specifically as an important first step towards the implementation of a living wage in the garment industry (Labour Behind the Label 2009 (see footnote 4); Merk 2009; Playfair 2008 (see footnote 3)). The Programme of Action submitted to the 10th World Congress of the ITGLWF (2009) calls for 'responsible purchasing practices on the part of buyers based on long term business relationships, providing sustainable pricing'. In one of his last statements before he died, Neil Kearney, General Secretary of the global union, articulated this demand even further:

> 'A sustainable system would see the employer being responsible for the payment of a living wage and the buyer being responsible for making the payment of a living wage a contractual obligation, paying prices that enable the supplier to fulfill that obligation, and supporting suppliers in bearing the risk of paying higher wages for instance by providing greater stability
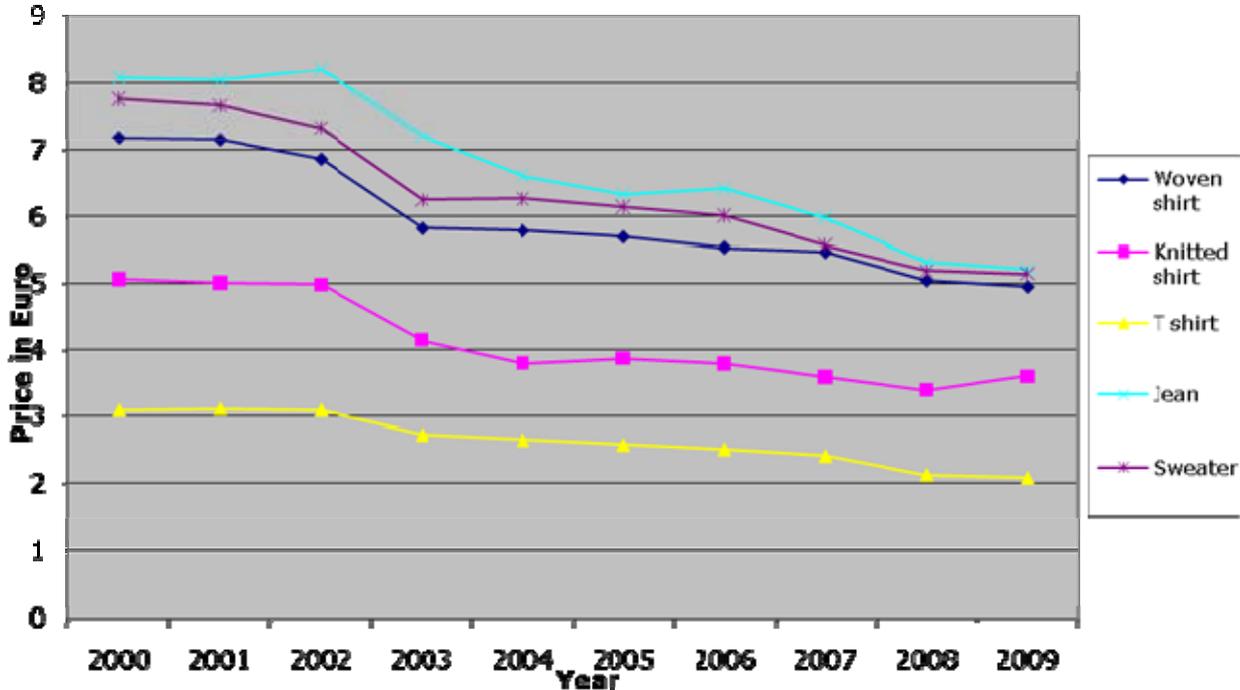
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in orders. This should not be an issue given the fact that wages make up such a small fraction of retail prices.'[4]

Significantly, all of these calls have been made against a backdrop of falling import prices, as Figure 1 shows:

Figure 1: Import price trends on selected garments from non-EU countries into the UK, 2000-2009

Note: All price data are taken from Customs declarations on total EU-15 imports from outside the EU-15. The price data provided are those declared by importers, including the cost of freight and insurance to the EU port of entry. The price excludes import duty and VAT.
Source: Email correspondence with Clothesource.

In a recent set of benchmarks on purchasing practices, the UK's ETI has called on its member companies to ensure the terms of their agreements with suppliers on prices, lead times and quantities are consistent with the ability of the supplier to observe the provisions of the Base Code (ETI 2010). If the price trends in Figure 1 are indicative of other fashion retail items, then the demands for living wage increases have an even greater resonance.

In the few pilots that are undertaking efforts to address this issue, wage increases are largely being achieved on the basis of productivity improvements and increased orders, a strategy confirmed by Labour Behind the Label's *Let's Clean Up Fashion* report of 2009. Similarly, most of the work undertaken in the ETI on purchasing practices with its member firms has thus far left untouched the area of pricing (ETI 2007). This is hardly surprising, given the commercial sensitivity of revealing cost information to competitors. Pricing and, more specifically, the costing of labour within this buying practice, has remained somewhat of a 'black box'. This paper seeks to lift the lid on this process in an attempt to examine the feasibility of introducing costing models and

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[4] ITGLWF response to Transfair's proposal to pilot Fair Trade Certified apparel for the US market. www.northumbria.ac.uk/static/5007/despdf/events/sgps.pdf (last accessed 3 February 2013).

mechanisms by which sourcing departments might implement – at their end – both wage compliance and the payment of a living wage within the apparel industry.

Three questions concern us at the outset. First, how do buyers cost out labour when sourcing apparel from their suppliers? Second, is there anything inherent in this practice that might contribute to the range of compliance issues encountered by workers on wages in global apparel supply chains? Third, in what ways might current practice be improved? If practice can be improved then there is a fourth, quite fundamental question, which focuses on the preconditions necessary to enable the introduction and implementation of a sustainable apparel pricing system in an outsourced multi-buyer make-to-order system of production.

Costing garments and costing labour in the global apparel industry

Costing can be described as the process of estimating and then determining the total cost of producing a garment, including the cost of materials and labour and the general expenses of indirect costs (Brown and Rice 2001). In outsourced apparel production, this managerial function has without doubt been complicated by the process of international outsourcing, as buying firms have become truncated and dis-embedded from the production process

> 'without a labour force of operators, and without institutions devoted to skill training, industrial relations or the creation of commitment that arises from both skill training, industrial relations and authority sharing'. (Lane and Probert 2009: 293)

In the case of branded manufacturers such as Levi Strauss and Triumph, it has been possible to retain some industrial engineering expertise, even though manufacturing has largely been outsourced.[5] Those fashion brand owners, retailers and discount stores that have never owned any manufacturing capacity, however, have relied on other sources of manufacturing data as their production has been outsourced to lower-cost countries. What impacts has this process of outsourcing had on the practice of costing, and labour costing in particular?

Costing labour

The definition of apparel cost varies enormously depending on the specific position of a company in the garment value chain. For buyers, the traditional approach has been to consider the costs that make up the FOB (freight on board) or ex factory price:[6] fabric, trim, packaging and the manufacturing cost often referred to as CM (cut make) or CMT (cut make and trim) cost. As a former buyer commented:

> 'Retailers tend to source the whole product and are interested only in the FOB as their target price. The individual buyer may discern individual elements but in general it is not a recorded pricing structure.'[7]

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[5] Levis Strauss has a team of production engineers based in its regional hubs in Miami, Brussels, Bangalore and Hong Kong (interview with Michael Kobori, 18 February 2010). Triumph considered an alignment of productivity levels in its factories and a standardisation of minute times (author's notes from the Triumph European Works Council, Inzell, 4-6 July 2006).
[6] Some buyers prefer to CIF (carriage, insurance, freight) in addition to the FOB or LDP (landed duty paid).
[7] Interview with Sean Chiles, former international buyer (Coats Viyella), 4 February 2010.

In the case of a brand, where the focus is likely to be on quality of fabric, and where the price of the fabric (itself a matter of negotiation between the textile supplier and the buyer) will be proscribed to the supplier and identified as such in the commercial contract, sourcing companies focus much more in the negotiation with a supplier factory on the CMT element. CMT is a term used to describe the direct and indirect labour assembly costs, factory overhead and supplier profit. From what is known, the direct and indirect labour cost, often referred to as the 'make' element, is quoted only rarely as a separate item.

As David Birnbaum has commented, this breakdown of FOB into fabric + CMT came about when garment importers moved from 'buying' to 'sourcing' (Birnbaum 2008: 17) When garment buyers relied on the factory to provide the complete product, they were interested in the lowest FOB price. However, this changed when importers began to 'source' garments, that is, to break the garment down into a series of materials and processes. As the process of sourcing developed under the quota system, the importer began to negotiate the fabric directly with the textile mill, leaving the factory simply to buy the material from the designated mill at a previously agreed price. This left CMT as the only area where the importer/buyer negotiated with the factory. So what happened to labour costing in this process?

The labour cost is generally calculated on the basis of a labour minute value, which is determined by multiplying the estimated amount of time taken to complete a garment by either an individual or a group of workers by the actual labour cost, which is either the minimum wage or the prevailing wage (minimum wage plus additional wage elements existing at the factory in question) expressed as a minute value. The estimated amount of time taken to complete a garment has always been a 'contested terrain' in industrial relations (Boggis 2001; Edwards 1979; Edwards and Scullion 1982) but in garment production, and outsourced assembly in particular, it is a vital component in the determination of production targets and ultimately the capacity of a supplier factory to handle an order. Here is what one industry expert has to say:

> 'Traditionally, the discussion between buyer and supplier has been about "cost", but without accurate assessment of time, cost cannot be accurately quantified. Additionally, without accurate time standards, production output and efficiencies cannot be effectively assessed and delivery schedules are therefore all but impossible to judge'.[8]
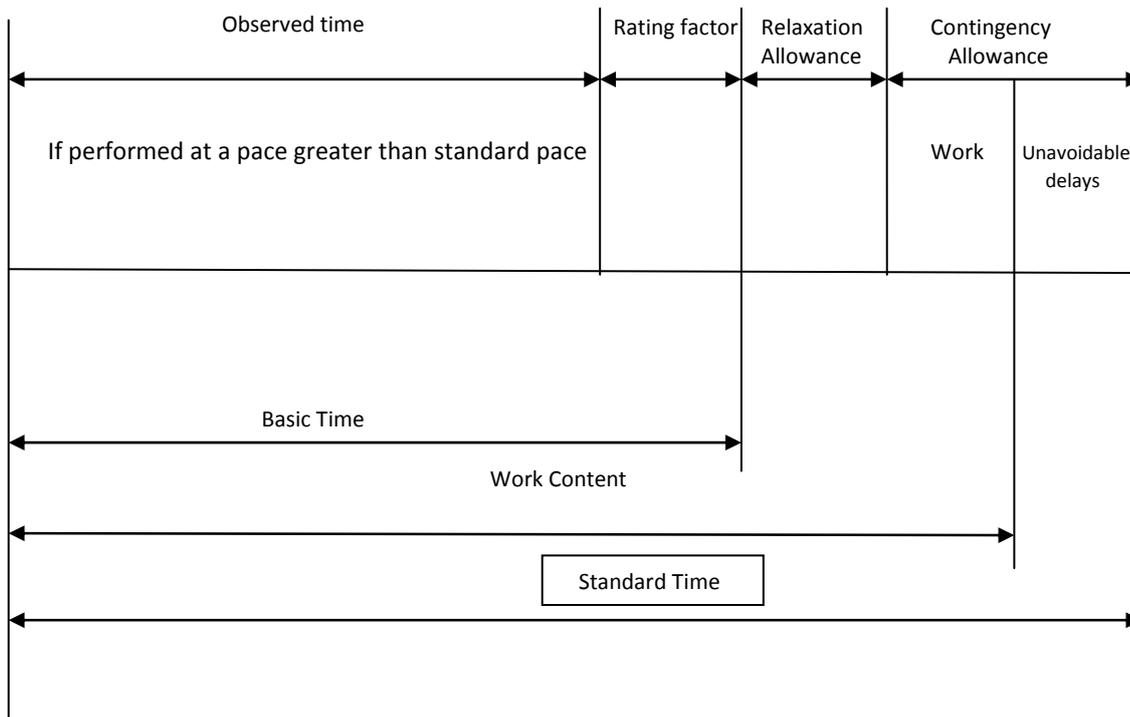
Three systems have developed in the apparel industry to determine the labour time or standard time to assemble a garment at what is known as standard performance: bespoke time study; 'structured estimates' based on known historical times; and what is known as PTS, or predetermined time standards.[9] Bespoke time and motions study, that is, the application of a range of 'techniques designed to establish the time for a qualified worker to carry out a task at a defined rate of working' (Kanawaty 1992: 243) can be carried out only in the actual factory, and is generally used by suppliers to determine a target time for a new style of a garment. Since this would normally be done in the sampling department by an experienced machinist, who may be located in a sourcing hub rather than in an actual factory, the target time may be unachievable both for the actual local factory conditions and for the average worker. For this reason, time study cannot really be undertaken until production has actually commenced, and therefore production targets cannot really be determined until after assembly begins. Hence, this is a reactive method. Figure 2 illustrates standard time as calculated under this method.

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[8] Interview with Paul Timson, General Sewing Data (GSD), 8 January 2010.
[9] Sometimes referred to as PMTS – predetermined motion time systems.

Figure 2: The make-up of standard time using conventional time study

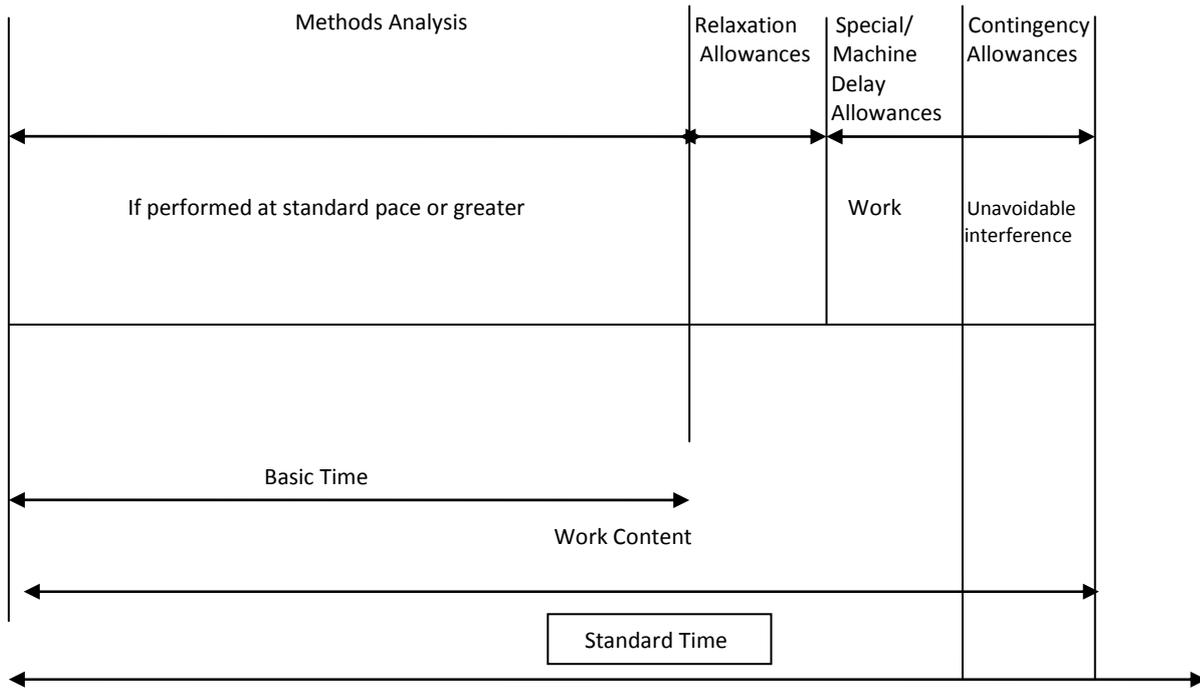| Observed time		Rating factor	Relaxation Allowance	Contingency Allowance	
If performed at a pace greater than standard pace				Work	Unavoidable delays

Basic Time

Work Content

Standard Time

Source: Kanawaty (1992).

Many small and medium-sized enterprises (SMEs) in the apparel industry that do not have industrial engineering capacity may resort to an estimation of labour time based on historical data – that is, approximations of what it ought to take to assemble specific components or whole garments. This too is problematic, since it cannot be audited, and is inaccurate, given constant changes to fashion and manufacturing methods and machines. For example, in their study of Turkish knitwear suppliers, Bulgun and Vuruskan (2005) found that many companies often had difficulty in archiving their manually undertaken cost estimates.

A third approach is PTS based on what is termed MTM, or methods time measurement, a system whereby times established for basic human motions are used to build up the time for a job at a defined level of performance on the basis of empirically tested data[10] – the time it takes to perform known human motions under defined conditions. This approach deconstructs a garment into its constituent parts, identifies the manual labour operations required to complete these components and uses this operational or methods analysis to predetermine manufacturing standard times and production targets. Figure 3 illustrates this.

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[10] MTM evolved on the basis of a series of films of the work performed by qualified workers on the shop floor at the Westinghouse Brake and Signal Corporation during the 1940s in the US. These films, which used constant speed cameras running at 16 frames per second, captured each manual operation, which was then rated by consensus of three qualified industrial engineers. From these motion captures, a series of basic human operations were defined – reach, grasp, move, position, release – and allocated a time measurement unit (0.036 seconds), thus allowing a library of basic motions to be established from which statistically proven, reliable and auditable synthetic times could be assembled for the completion of particular tasks.

Figure 3: The make-up of standard time using PTS

Methods Analysis	Relaxation Allowances	Special/ Machine Delay Allowances	Contingency Allowances
If performed at standard pace or greater		Work	Unavoidable interference

Basic Time

Work Content

Standard Time

Source: Based on Kanawaty (1992).

For obvious reasons, such an approach is highly technical and 'synthetic' in the sense that the standard times are externally calculated from a database of 'standard minute values' (the US term is standard allowed minutes, or SAMs) empirically determined for the range of manual operations necessary to assemble a particular product. According to the International Labour Organization (ILO), as of 1992 there were some 200 different PTS systems, offered by consultancies for adoption by manufacturing companies (Kanawaty, 1992). In apparel manufacture, three PTS consultancy firms specializing in MTM appear to be operating in the sector– the US-based Modular Arrangement of Predetermined Time Standards (MODAPTS), the Sri Lankan-based Sew Easy and the UK-headquartered GSD (Corporate) Ltd. All three forms of work measurement for arriving at a standard time should normally make provision for relaxation, contingency and special allowances, as Figures 2 and 3 show. In addition, the standard minute value (SMV) is based on what is known as a standard performance that is 'the rate of output which qualified workers will naturally achieve without over exertion as an average over the working day or shift, provided that they know and adhere to the specified method and provided that they are motivated to apply themselves to their work' (Kanawaty: 302).

In order to compare an observed rate of working and a standard rate, a recommended scale of rating of 0-100 is adopted,[11] whereby 100 is deemed to be standard performance. Before manufacturing migrated, time standards were used in the US and Europe in the clothing industry (Carew 1987) as a basis for incentive schemes, and trade unions successfully negotiated collective agreements based on the principle that if 100 performance were a rate of work requiring one-third more effort than the normal rate of working (a normal non-incentive rate of working is deemed to be 75 performance), then employers had to accept that, at 100 performance, there should be a rate of pay in excess of the minimum day rate. Generally, the piecework bonus would be plus 33 percent of the basic minimum rate for the achievement of 100 performance.[12] Traditionally, on

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[11] Based on the British Standards Institute norm (Kanawaty 1992).
[12] Interview with Derek Cattell, former National Union of Tailors and Garment Workers/General Municipal and Boilermakers Full Time Officer and Works Study Tutor, 11 February 2010. See also Article 13 of the Ladies

piecework systems, the base rate or minimum fall back rate was set at 75 performance. This type of bonus scheme would provide additional bonus earnings for performance above 75, usually directly proportional to a 33.333 percent bonus being earned at 100 performance and proportionally more when a performance greater than standard was achieved. The piecework bonus calculation was usually over one working week.

Inevitably, the results of measuring work and quantifying standard time are going to vary from factory to factory, depending on the manufacturing process, the physical environment, the equipment and technology used and the specific payment system in operation. This is the weakness of using PTS at the buyer end. In order to establish standard time for generic products in a multiple supply base, it is therefore necessary to define an average or 'virtual' environment in which the manufacturing processes are 'visualised'.[13] GSD (Corporate) Ltd, for example, has developed a virtual (factory) environment based on a sample of 'average' manufacturers against which they generate their SMVs. This is derived from an extensive survey of the above variables in a sample of manufacturers (see Annex 4).

So what has been the practice on labour costing? For buyers, it would appear that there was some practice in the past whereby GSD was used to assist in arriving at an FOB, but the values provided by the supplier were based on absolute CMT costs. Here is what one industry practitioner has to say:

> 'Many moons ago, when we all had work study departments and UK manufacturing, we would be provided the standard minute cost from our offshore suppliers. This would vary depending on what overheads they lumped in and what efficiencies they calculated the rate at […] Let us say the factory cost at $0.10 per standard minute, the factory profit, all overheads and all associated costs with the running of a business would be included in this figure. Then, using a pretty standard calculation, we would, using GSD, cost the garment. Example for a shirt: GSD calculation = 24 standard minutes, factory costs $0.10 per standard minute therefore the CM price would be $2.40, which would be a ball park figure to start the negotiation; however, it does allow a fairly accurate way to calculate the CM costs. Fabric, trim, import duties etc. would be add-ons to give you full FOB costs.'[14]

The acceleration of outsourcing throughout the 1980s and 1990s and the arrival of the new brand-conscious private label fashion and value clothing retailers (including the top supermarkets) generated a much less rigorous approach to the question of labour costing, particularly since the 'new economy' mantra was to concentrate on marketing rather than production, of which such companies had no experience. This appears to be borne out by a random survey of leading high street fashion retailers and brand owners undertaken during the first quarter of 2010. Table 1 reproduces the results.

Apparel Contractors' Association, the United Better Dress Manufacturers' Association and the International Ladies Garment Workers Union (forerunner of the Union of Needletrades, Industrial and Textile Employees) 1989-1991. See also Section 15 Subsection 5b of the Regional Framework Agreement for the Textile and Clothing Industry of Baden Württemberg 1984-to date (which provides for a 15 percent minimum production bonus vis-à-vis non-payment by results worker).
[13] www.gsdhq.com.
[14] Email exchange with Derek Boyden, Product Development Director, Dimensions UK, 15 February 2010.

Table 1: Labour costing survey results

Company	A	B	C	D	E	F	G
Market segment	Fashion retail	Women's fashion	Fashion retail	Fashion and fashion accessories	Casualwear	Retailer	Fashion retailer
Is CMT broken down?	No	No	No	No		Yes	No
Open book costing	Moving slowly to this in some cases	No	No	No	Yes, but CSR not totally clear as to its extent	Yes – moving towards this but still no info provided by supplier on margins	Yes
Calculation of labour cost	No	No	No	No	Yes	Aspired to	No
PMT used	No	Yes in some CMT factories but data not supplied	Production engineers in owned factory	No	No own work study in hubs	Yes	No
Which system is used, e.g. GSD						GSD	
Dialogue with production engineers, where known	None	None	Some in a key supplier country	None	Yes	In pilots	None
Any dialogue with these on labour costs?	No	No, discussions take place with the sales person or factory manager		No	Yes		No

Source: Based on a telephone survey with key CSR staff.

With the exception of one retailer that was attempting to break its CMT costs down into direct labour, social costs, factory overhead and factory margin, most respondents were not engaging in any labour costing *per se*, nor was there any dialogue between buyers and production engineers in supplier companies, where they existed. One retailer reported using a factory it owned for calculating times on the garments to be produced in other factories in the supply country where that factory was based. These times were not used for suppliers in other countries, however.

On the supply side, one study took a critical look at production management in apparel manufacturers in Commonwealth countries and found that, almost everywhere, production management and industrial engineering capabilities needed to be upgraded (Lezama et al. 2004) and that, with the exception of the majority of factories surveyed in Sri Lanka, most suppliers In Bangladesh, Mauritius and South Africa reported the use of time studies to determine the SMV in order to evaluate direct labour costs rather than benchmark against external PTS standards (ibid.). In Cambodia, a US Agency for International Development (USAID) study on the competitiveness of the apparel industry discovered that no factories were generating their own standard times (Nathan Associates 2005). Crucially, while a company like GSD (Corporate) Ltd, which specialises in PTS, can report an increase in the number of manufacturers turning to PTS, the number of brands and retailers that have embraced this approach to inform labour costing and garment pricing is currently negligible.[15]

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[15] Interview with Paul Timson.

On the one hand, very few buyers are using PTS; on the other, although suppliers may be using more 'rigorous' forms of labour costing, they are happy to keep the framework of price negotiation as a catch-all CMT, lest they disclose sensitive costing data to the buyers. As a former international buyer and supplier commented:

> 'Larger manufacturing groups have their own production engineers who will know the precise labour minute values on their garments but may not disclose this to the buyer because they may seek to push this down so they will resist trying to give all the information to the buyers, or will not give the correct information.'[16]

Some buyers have resorted to the one-sided practice of requiring that their suppliers 'open their books' during price negotiations, a practice some observers see as naked power play in an attempt to drive prices down (Lamming et al. 2005: 558). There were signs from the retailers surveyed that open costing was on the agenda in some cases. In such circumstances, it is argued, suppliers have no other option but to hedge by distorting their figures. Consequently, FOB and CMT negotiations can remain somewhat of a crude 'cat and mouse' exercise (ibid.; SOMO 2003), as buyers continue to drive the market (Gereffi 1999) and their purchasing practices are based on target margins.

Most companies negotiate using historic data:

> 'Example, you made that shirt for $2 – make this one for $1.90. Very little science goes into the negotiation and certainly 90% of companies that work this way will not give a toss on what the labour rates are in the factory, as long as the external audits do not put them under the country laws of paying the "minimum wage."'[17]

Here is what the General Secretary of the Garment Manufacturers Association in Cambodia had to say:

> 'The buyers nowadays come to us with the specifications of the garments they want produced […] What generally happens is that the factories are given a CMT price as a lump sum value and the factories are left to manage it as they like. In this case, there is some haggling and negotiations about providing a longer standard time in order to get a higher CMT price. In most cases, however, there is just a negotiation to obtain a higher CMT price without much reference to the standard times […] We are left to manage our own costs and the buyers generally adopt a take-it-or-leave-it attitude when it comes to the price they provide to us.'[18]

Suppliers may thus end up selling to a buyer at a cost that is later found to be unachievable, the consequence of which is reduced profit for them and an unachievable delivery schedule. This in turn leads to low wages and excessive overtime – the former to protect reduced profit, the latter to ensure delivery is made on time, regardless of the social consequences of long working hours. More ethical (unionized) suppliers might in an FOB or CMT negotiation take a hit on profit margin rather than change the labour price/wage bill – because this will cause trouble with the workers.[19]

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[16] Interview with Sean Chiles.
[17] Email correspondence with Derek Boyden.
[18] Email correspondence with Ken Loo, General Secretary of the Garment Manufacturers Association in Cambodia, 7 December 2009.
[19] As reported by Sean Chiles.

Others will have the work undertaken in another factory – a move likely to constitute a breach of the commercial contract or code of conduct provision.

Yet it would be wrong to attribute ongoing wage non-compliances to an absence of accurate labour costing, as serious as this may appear, since other buying practices can have a significant effect on the ability of a supplier to meet the wage standards laid down in a buyer's code of conduct (ETI 2007). Reliable empirical studies on purchasing practices are difficult to come by, since suppliers are loathe to risk their commercial relationships by revealing the clauses inserted into contracts for apparel goods. However, anecdotal evidence and attempts by suppliers to fight back shed some light on the situation here. It is not unknown for buyers to contact a supplier one month before a delivery date and demand a 15 percent reduction on the cost of the order or else they will take only half of the volume originally specified, or for there to be sudden and arbitrary extensions of the payment schedule.[20] In a telling and sober commentary on the wage issue in the supply chain, one expert had this to say:

> 'The wages paid to people on sewing machines in the developing world are an almost trivial part of a garment's CM cost. Overheads, ancillary work, finance, utilities, profit, "legitimate" bribes (like paying customs officers who'd otherwise leave your exports to rot) and the owners' pension plans are typically several times the direct costs standard minutes measure. How a factory owner gets from those six minutes to a CM cost of $2.50 will vary massively from owner to owner, garment to garment, random moment to random moment (in Pakistan, the energy cost depends on whether the garment's going through when you can use gas from the grid or when you've got to use your own generator) and a gazillion other factors. A 10% change in direct wages, or a 10% change in the minutes needed, has an imperceptible effect: factory owners are hard-faced about paying rotten wages not because they're vital in themselves, but because they're just about the only cost factories can control – and in a world of fluctuating exchange rates, cotton price inflation, arbitrary power disconnection and Western retailers going bust before paying suppliers, the only costs they can.'[21]

Towards sustainable labour costing – making human labour as important as fabric

If buyers are serious about the commitments they undertake in their codes of conduct, particularly in relation to wage compliance and a living wage, then it is not enough to 'work backwards' by relying on masked supplier data. There is a responsibility to ensure provision is made in the FOB or CMT price to cover the prevailing wage and, moreover, a living wage labour cost. In the same way that fabric can be costed out, and rendered as a dedicated cost item in the price negotiation, so too should the wage element be calculated and ring-fenced as part of the cost negotiation. So what might be the processes by which such an exercise could be undertaken?

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[20] Interview with Sean Chiles. See also http://www.fpb.org/page/643/ (last accessed 19 February 2010). British Home Stores decided in July 2006 it would increase their already considerable demands on their suppliers. Payment terms were doubled from 30 to 60 days; meanwhile, an additional 1 percent discount would be taken, moving their discount rate up to 11.25 percent. And in 2008, Matalan wrote to suppliers to inform them it was paying 2 percent less on all invoices from 1 September 2008 on top of an earlier 2 percent discount request in 2006. See also www.fpb.org/images/PDFs/surveys/FPB%20-%20late%20payment%20survey%20results_Aug%202008.pdf (last accessed 19 February 2010).
[21] Email correspondence with Mike Flanagan, Industry Consultant, Clothesource.

If a buyer is to engage in sustainable labour costing, then a library of standard times, most certainly for generic items, will be required for a multiple supply base. Some form of – and therefore familiarization with – PTS will be necessary, particularly where there is no existing in-house industrial engineering expertise. Companies such as GSD have SMVs calculated for garment basic styles, and new styles would need to be added to the central database, as these are worked out in conjunction with a specific supplier. In discussions with GSD, it was possible to observe how an SMV can quickly be constructed from a software platform for basic items such as a dress shirt or a five-pocket pair of jeans. Figure 4 shows a costing sheet containing SMVs for the labour input required for a standard five-pocket western-style jean.

Figure 4: Costing – SMV for a five-pocket Western style jean

Style File Number	QJEANS001		S.M.V.	@ Eff.
Style Number / Title	5 Pocket Western Jean	Cutting	2.496	3.327
Style Description		Machining	15.110	20.141
		Examination	2.161	2.881
		Pressing	0.000	0.000
		Packing	0.970	1.293
		Outwork	0.000	0.000
Customer		Total	20.737	27.642
Season		Factory Overheads	%	0.000
Product Ref.		Fabric Range Variance	%	0.000
Order Quantity		Learning Curve Allowance	%	0.000
Comments				
		Contract Washing Minutes		
		Contract Decorative Mins		
		Total Production Cost		
		Fusable	0.000	Accessories
		Lining	0.000	Packaging
		Fabric	0.000	Embroidery
		Thread	0.000	Misc
		Trimmings	0.000	
		Total Material Cost		
		Prime Cost		
		Social & Employment Costs		%
		Sales and Admin Overhead		%
		Contingencies		%
		Quota		
		Transport		
		Freight Insurance		
		Total Local Cost		
		Costing in	@	
		Total Cost		
Created By	GSD	08/02/2010	Margin	%
Amended By	GSD	22/02/2010	Costed Selling Price	
			Price Point/ Actual Margin	

Source: Courtesy of GSD.

The remaining data fields would need to be entered following dialogue with the respective fabric suppliers and the assembly factory in question. GSD refer to this process as 'fact-based negotiation'.[22] In this example, the SMV for the different sets of operations required to assemble a pair of jeans totals 20.737 minutes. This time is synthetic, however, in that it relates to the average or 'virtual' factory environment mentioned above (see Annex 4). By analysing the manufacturing process required for a given garment manufactured under given working conditions, GSD has, for example, arrived at this SMV using the PTS known as 'GSD'. In so doing, GSD gives due consideration to an extensive sample of manufacturers surveyed and has considered the processes, physical environment, equipment and technology and workers' remuneration in place within the respective manufacturing organizations. Early supplier assessments prior to establishing a commercial relationship ought to yield sufficient information to enable an assessment of a factory's ability to achieve PTS standards. A critical variable in all of this is the level of factory efficiency, that is, the number of pieces assembled in the time available in the hour, taking into

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[22] Interview with Paul Timson.

consideration any 'downtime'. Work measurement can enable efficient production planning to occur. Let us assume an order is placed that equates to a weekly production target of 20,000 pairs of jeans, where:

1. The weekly contracted minutes available per worker is 2,880, i.e. 48 hours x 60 minutes;
2. The attendance per week is 97 percent;
3. The target efficiency is 75 percent.

The standard minutes required in one week = 20,000 x 20.737 = 414,740 (where the SMV for each jean is 20.737 minutes)

Weekly attendance minutes required = (414,740 <u>x 100% attendance)</u> x <u>100% efficiency</u>
$$\text{97\% attendance} \quad\text{x 75\% efficiency}$$

Number of full time people required = <u>570,089 attendance minutes per week</u> =
$$\text{2,880 contracted minutes per week}$$

Full-time equivalent employees required = 198

Thus, at 75 percent efficiency, 198 full-time equivalent workers would be required. It is important to note that, in work study parlance, 'efficiency' and ultimately productivity (the amount of output per unit of input (labour, equipment and capital) are the responsibility of factory production management and not the worker. As Bheda (2002) has commented:

> 'When the factors associated with productivity are reviewed, it becomes clear that most [...] are of techno-managerial nature and apparel manufacturers can improve productivity performance substantially by implementing best practices in the area of operator and management training, industrial engineering, production planning and scheduling, industrial relations and [a] productivity linked incentive scheme'.

There are wide variations in efficiency and varying interpretations of efficiency across the industry. The two successive USAID reports on factory competitiveness in Cambodia, for example, reveal variations in factory efficiency of between 35 percent and 80 percent in international standard times (Nathan Associates 2005; Nathan Associates and Werner International 2007). This again is an area that requires more accurate determination,[23] since inaccurate production planning can have serious consequences for the intensification of work and the underpayment of workers – both chronic compliance issues, as highlighted by Jenkins' (2010) study of women in the Bangalore garment industry who work to excessive targets for a minimum wage with no incentive.

In our example above, an allowance has been made for a factory operating at 75 percent efficiency, and so the SMV has to be adjusted. This can be done using the following formula:

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[23] 'Accurate calculation of efficiency depends on the target being accurate in the first place, because if, say, 60 is a realistic target but the target is given as, say, 30, the target will be easily achieved and the efficiency falsely inflated (indeed, what tends to happen in this scenario is that the operator earns money at 30, so does not achieve 60 because the incentive is lost, so the reality is that true efficiency falls – although mathematically it looks to be good). Equally, if 60 is a realistic target but the target is set at, say, 80 (which is unachievable), then two things happen [...] the operators know they cannot achieve the target so become de-motivated, and even if they do achieve the realistic 60, efficiency looks to be less than 100 because the target of 80 deflates the efficiency.' Interview with Paul Timson.

Table 2: Example – Western five-pocket jean made in Cambodia

Process	SMV	@ 75% factory efficiency	*@35% factory efficiency
Cutting	2.496	3.327 3.328	7.131
Machining	15.110	20.123 20.147	43.122 43.171
Examination	2.161	2.881	6.174
Pressing	0.000	0.000	0.000
Packing	0.970	1.293	2.771
Outwork (embroidery)	0.000	0.000	0.000
Total	20.737	27.642 27.649	59.197 59.247 (59.248 against 20.737)

(SMV/Eff) x 100

Working on the basis of a 26-day month, the number of minutes a worker would have available equals

> 26 days x 8 hours x 60 = 12,480 minutes per month

The buyer would then have to establish the existing prevailing wage and pay elements in the supply factory in question in Cambodia. Using data from the USAID Cambodian study (Nathan Associates and Werner International 2007) we see that, as at 2007, the average cost of labour was $78.97 including hourly rate and benefits and overtime (see Table 3). However, in order to arrive at the basic earnings, it is necessary to subtract the overtime figure from the total to arrive at a standard remuneration figure for a basic week/month:

> $78.97 – $16.29 = $62.68 (monthly minimum)

Table 3: Example of a remuneration package at a Cambodian factory

	Monthly Base Rate (US$)	Days /Month	Hours /Year	Average Rate (US$)	
				Daily	Hourly
(a) Base Rate	50.00	26	2496	1.92	0.240
Attendance pay	5.00	--	--	0.19	0.024
Seniority pay	4.00	--	--	0.15	0.019
(b) Base rate w/attendance and seniority	59.00	26	2,496	2.27	0.284
Holidays (23 days per year)	--	-1.9	-184	0.18	0.023
Vacation (18 days per year)	--	-1.5	-144	0.14	0.018
(c) Adjusted for vacation and holiday	59.00	22.6	2,168	2.61	0.327
Overtime (1.5 x base rate x 2 hours)	16.29	5.6	542	0.05	0.007
(d) Average monthly pay with overtime	75.29	28.2	2,710	2.67	0.333
Holidays (11.5 x 2.0 x base rate)	3.69	1.0	92	0.04	0.005
(e) Total, including holiday compensation	78.97	29.2	2,802	2.71	0.338

Source: Nathan Associates/Werner International (2007).

For the factory to be in a position to meet its current obligations under a buyer code of conduct, the unit labour cost would need to be:

62.68/12,480 = 0.005 (US$) cents) x 20.737 (100 percent efficiency) = US$0.10 cents [24]

In this case, there is no incentive scheme (see Table 3) but there are other elements (attendance allowance, seniority bonus and holiday pay) that make up the wage that would need to be factored into the calculation where they exist. We have seen, however, that studies have shown factory efficiencies to be running at 35 percent. If a factory is operating at this level, it will be paid only a third of the labour time it is taking on average to produce the jeans.

62.68/12480 = 0.005 (US$) cents) x 20.737 @ 35 percent efficiency = US$0,30 cents

Ring-fencing the labour cost would thus force the supplier to address the issue of how the factory is operating, since the basic minimum wage would be the same regardless of factory efficiency.

For those buyers committed to delivering a living wage and who have consulted with local trade unions on a figure, an appropriate labour cost can be calculated. Again for Cambodia, where there has been no movement on the minimum wage since 2006, the living wage figure calculated in 2009 by the Cambodia Institute of Development Studies on behalf of the apparel unions affiliated to the Asian and Pacific Regional Organization of the International Textile, Garment and Leather Workers' Federation was $120 (Chandararot and Dannet 2009). If this monthly living wage figure is divided by the available worker minutes in a month, one arrives at a figure of:

$120/12,480 = US$ 0.01 cent per minute[25]

If this figure is then multiplied by the number of minutes required to make the garment at agreed efficiency, the unit labour cost (allowing for a one-third production bonus at 100 performance[26] but with no further pay elements) would be

e.g.   20.737 minutes x 1 @ 100 percent efficiency = US$ 0.20.737 cents

To this would need to be added a percentage for social costs where such are paid, to arrive at a labour cost per garment that equates to a living wage. Significantly, the magnitude of the labour cost to both a buyer and a supplier would hinge on the level of efficiency in the factory and not on the level of wages, switching attention back on to the issue - long recognized by stakeholders – of the need for effective management and management systems in supplier factories.

Impacts

Sustainable labour costing would require a change in existing practice that involves a separate itemization of the full unit labour cost in any commercial contract between buyer and supplier as a non-negotiable item alongside fabric. What would be the implications of such an initiative for price, compliance and the buyer–supplier relationship? Let us look at a possible scenario for Bangladesh. The Bangladesh Garment Workers Unity Council announced 2010 a campaign to achieve a living wage[27] pay increase from the existing Tk 1,662.50 per month entry-level rate to Tk 5,000 for the

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[24] To the nearest decimal point.

[25] .0096 rounded to the nearest decimal point.

[26] Since standard performance historically in unionized environments is generally defined as working at a rate a third above the work rate of a non-incentive worker, piece rate/bonus workers should be able to earn the minimum (living wage) rate at 75 percent performance or below and an incentive bonus of one-third on achievement of 100 performance where the start point of the bonus payment is 76 performance.

[27] This is a nationally determined figure, unlike the externally generated Asia Floor Wage figure of Tk 10,754.

same grade.[28] Table 4 contains the 2006 FOB prices for specific categories of garment exported from Bangladesh, a country that has the lowest labour costs in the global apparel industry (see Annex 5). 2006 was the year in which the minimum wage was last fixed, and average prices have generally either remained static or fallen. It can be seen that, even allowing for factory efficiencies of only 35 percent, achieving a minimum wage hike from Tk 1,662 to Tk 5,000 would constitute increases on the retail prices of garments shown of between 1 percent and 3 percent on the retail price.

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[28] *The Daily Star*, 24 January 2010.

Table 4: Impact of a living wage increase on FOB on selected garments made in Bangladesh (allowing for efficiency)

Garment style	FOB ($)[29]	SMV[30]	@35% efficiency	Current minimum wage (Tk)	Current living wage demand (Tk)	Living wage unit labour cost: formula LW/12,480 x SMV (Tk)[31]	Minimum living wage unit labour cost (US$ cents)[32]	Minimum unit labour cost (% of FOB)[33]	Minimum unit labour cost (% of retail price)[34]
Men's polo	2.50	15.323	53.631 43.78	1,662	5,000	6.13(18)	9 (27)	3.6 (10.8)	1%-3%($23.00)
Men's formal shirt	4.10	22.091	63.117	1,662	5,000	9 (27)	13 (39)	3 (9)	.3%-1% ($36 00)
Men's Western 5-pocket jean	5.50	20.737	59.197 59.248	1,662	5,000	8 (24)	12 (36)	6.5(19.5)	1%-3%($22.50)

Source: Abbas Udin (2006) and author's interview with a Bangladeshi factory owner

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[29] 2006 figure source: Abbas Uddin (2006) and interview with a Bangladeshi factory owner. Average figures only, subject to variation based on style and size.
[30] Courtesy of GSD.
[31] Rounded figures, based on standard SMV not allowing for factory inefficiency and providing for a 33 percent potential bonus at 100 performance. Figure in brackets at 35 percent efficiency.
[32] Calculation undertaken using rates of exchange as at 11 February 2010. Figure in brackets at 35 percent efficiency.
[33] Ditto.
[34] Figures at 100 percent and 35 percent efficiency; figure in brackets average retail price.

The Asia Floor Wage

Whereas the unions in Bangladesh agreed on a target of Tk 5.000 for the current living wage campaign, a higher externally calculated figure for Bangladesh has been determined by campaign groups aligned with the AFW campaign, which seeks to take wages out of competition by using purchasing power parity to adjust for inflation and exchange rate differences (Merk 2009). Table 5 shows the projected unit labour cost on a pair of Western-style jeans using AFW target figures. Annex 3 contains calculations applying the above formula to the AFW projections. Significantly, when a calculation is undertaken using projected AFW target figures, what ought to result in similar unit labour costs across the Asia region shows a variance in unit labour cost between $0.24 and $0.38 at 100 percent efficiency ($0.48 and $0.76, respectively, at 50 percent efficiency). This is entirely attributable to the prevailing rates of exchange to the dollar at the time of the calculation. As an aside, buyers using this methodology might ultimately discriminate between suppliers on the basis of currency value rather than labour cost (see Pickles and Goger 2009).

Table 5: AFW costing on five-pocket Western-style jean

Country	SMV[35]	Current monthly minimum wage	AFW in local currency	Unit AFW unit labour cost: formula AFW/12,480 x SMV[36] in local currency	Living wage unit labour cost in US cents[37]	Living wage unit labour cost in US cents at 50% efficiency
Bangladesh	20.737	Tk 1,662	10,754	Tk 17	0.25	0.50
China	20.737	RMB 687[38]	1638.75[39]	RMB 2.6	0.38	0.76
India	20.737	Rs 4,238	6968.25	Rs 11	0.24	0.48
Sri Lanka	20.737	Rs 5,046	16.705.75	Rs 27	0.24	0.48
Thailand	20.737	THB4,368	7566.75	THB13	0.38	0.76
Indonesia	20.737	IDR 972,604	1,868.650	IDR 3,000	0.32	0.64

A critical impact question for both the sourcing company and the supplier relates to the means by which an increase in the unit labour cost is to be funded. Assuming adoption of the policy of ring-fencing the labour cost component of the FOB, buyers would have at least five options here. First, they could pass the increase on to the consumer through a marginal increase in the retail price.[40] Second, they could absorb the increase and take a hit on margin. Third, they could absorb the increase but seek to pay for this through supply chain efficiencies rather than squeeze profit (ETI 2007). Fourth, they could insist on the supplier absorbing the increase, in which case factory management would have to absorb a reduction in profit to cover the increased labour cost. Fifth, they could work with the supplier to increase productivity and efficiency to improve throughput and, by committing increased volume, enable the supplier to absorb this extra cost through factory efficiencies. Some UK fashion retailers, for example Marks & Spencer[41] and New Look (New Look 2010), are already moving down this productivity path, and New Look has marginally increased its unit price by $0.4 to assist one of its strategic suppliers to achieve this.[42]

Since there will be an inevitable discrepancy between SMV and factory efficiency, moving to sustainable labour costing will require more transparency in buyer/supplier transactions. What is effectively 'open book costing' will require integrity measures on the part of buyers, such as price

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[35] Courtesy of GSD.
[36] Rounded figures – based on standard SMV not allowing for factory inefficiency.
[37] Calculation undertaken using rates of exchange as at 11 February 2010.
[38] Figures taken from the AFW Report.
[39] Ditto.
[40] There is some debate about the impact of 'pass through', that is, the impact of percentage add-ons to the FOB on the final LDP price (see Miller and Williams 2009).
[41] Notes on ETI Wages Action Forum, 21 January 2010.
[42] Letter to Action Aid dated 19.01 2010.

increases, long-term supply agreements and the offer of productivity expertise where available. A productivity/efficiency enhancement programme coupled with the delivery of a living wage ought to accelerate a process already underway in some parts of the global industry of consolidation and upgrading of machines, methods and materials, most certainly in those companies on their way to a full package. On the downside, the reality may have to be faced that ring-fencing labour cost may drive some factory owners out of a business they probably should not have been engaging in the first place.[43]

Towards a new buyer incentive scheme

Ring-fencing labour cost will require a significant adjustment on the part of buying departments and probably a greater role for merchandisers. Software systems will need to be put in place to enable swift inputs of SMVs, factory efficiencies and local remuneration packages. One challenge is likely to be the impact of fast fashion retailing on the number of stock-keeping units SKUs and changing styles, but as buyers engage with PTS companies, which are in turn are engaging with workers and their organizations to determine new SMVs for new garment styles, so the compendium of SMVs can be expanded. To take the polo shirt as an example, the SMV of 15.323 quoted in Table 4 above is for a basic polo shirt, whereas a heavily styled garment with an intricate neck construction and considerable topstitching would carry an SMV of 20.587.[44] However, in the same way that buyers and merchandisers have to keep track of material costs, so too should they maintain and update a database of minute values and labour costs for the factories in their respective sourcing countries.

In Australia, where retailers negotiated a Homeworkers' Code of Practice with the Textile, Clothing and Footwear Union of Australia in 2008 and received government backing to promote it, parties to the agreement are using a jointly agreed Product Sewing Time Manual as a reference point (see Box 1) to ensure homeworkers in clothing and footwear in Australia are not cheated out of their wage entitlements.[45] Ethically conscious sourcing companies could drive this development with a new buyer/merchandiser incentive scheme, with an initial bonus awarded for ring-fencing a living wage figure into a commercial contract, payable only on receipt of such verification data confirming that workers were being paid not only a minimum wage but also a living wage.

What will clearly facilitate this process will be the existence and implementation of compatible work measurement and time analysis systems by both a buyer and a supplier in the same chain, so that SMVs predicted by buyers can be verified using the same tools for measuring efficiencies in factory. GSD appears to be the PTS provider most known by brands/retailers in the UK at the present time, and this would offer a common language, and thereby a technique, for the ethical establishment of auditable time/cost benchmarks, which hopefully would form the basis for more transparent and achievable production targets, payment schemes and production planning in the future. Significantly, GSD is expanding its business, advising manufacturers in China and South East Asia (Jenkins 2010). However, successful implementation will depend crucially on worker involvement, and it is to this point that we now must turn.

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[43] Louis Vanegas, former US Department of Labour inspector and now CSR Manager with New Balance recounted to the author how often he had to confront factory owners with this stark realization following his Department of Labour audits.
[44] Courtesy of GSD.
[45] Crucially, the union has the right to disclosure of information on homeworkers' addresses and to visit the same for the purposes of verification.

> **Box 1: The Australian Homeworkers' Code of Practice**
>
> The Australian Homeworkers' Code of Practice encourages manufacturers to take an ethical approach and be responsible for staying informed on all the steps involved in the production of their garments. The 'accreditation' process that manufacturers undergo to become eligible to use the 'No Sweat Shop' label on their Australian-made garments is effectively the process of 'mapping' the company's supply chain and verifying that workers are receiving their legal entitlements.
>
> The production chains of accredited manufacturers continue to be reviewed and documented by the code's project and administration officers and verified by the Textile Clothing and Footwear Union of Australia. When consumers see the 'No Sweat Shop' label, they can be confident that the garment was produced in Australia and everyone involved in its production received at least the minimum legal standards.
>
> Source: http://www.nosweatshoplabel.com/home/

Workers, trade unions and work study in apparel value chains

> 'Since wages and standards of production are so closely related [...] workers should not only be informed of methods of timing but [...] production speed should be jointly determined by management and workers [as] a logical and necessary step in the democratic conduct of industry' (Gilson 1940, in Gomberg 1948: 172-173).

It has been argued that, as a result of international outsourcing, a move towards sustainable labour costing must inevitably involve some form of PTS, particularly in those companies with no prior experience of industrial engineering/production management. This poses three immediate problems for workers and organized labour. First, there is the charge that PTS systems are pseudo-scientific and impose scientific management principles on the labour process (Grant 1983; see also Truman and Keating 2007). Second, and related to the first point, is that such remote costing would be removed from the actual conditions in the supplier factory. Third, there is the issue of worker and trade union involvement in the processes of work measurement – weakened by the absence of trade unions in many of the workplaces in the apparel supply chain (Miller 2004). Let us look at these in turn.

Scientific management

Trade unions have historically grappled with the contradictions of work measurement. The clothing workers of England and Scotland in the late 19th century suffered 'needless vexation' at the wide variations of the money (straight piece work) and time (payment on the basis of time saved) logs. The first national conference of the Scottish Amalgamated Society of Tailors and Tailoresses approved a uniform time log, which was submitted as a wage demand to employers in 1866 (Stewart and Hunter 1964). Later, in the first quarter of the 20th century, as scientific management grew apace, there was much debate and scepticism on the part of the trade union movement, in particular concerning the extent to which detailed motion patterns could be standardized, a fundamental issue in assessing the value of rate setting systems. In his seminal critique of works study, the then Director of the Management Engineering Department of the International Ladies Garment Workers Union, William Gomberg, challenged industrial engineers on the basis that all work standards were merely approximations and samples and were therefore not applicable to all workers on an equal basis with extreme mathematical and/or statistical accuracy: 'While the mechanical and physiological factors may be controlled, the psychological factor, particularly under the impact of sociological pressures, leads to an unpredictable universe for all practical purposes' (1948: 126).

Yet in a later piece, Gomberg acknowledged that the economics of the industry 'forced the union to take a new look at technique and thereby convert motion and time study from a substitute for collective bargaining into a tool of collective bargaining' (1968: 75). The footloose nature of the clothing industry, and the ability of employers to compete on wages, forced the unions to consider standardization, particularly where garment manufacture had moved from straight piece work to section work on assembly lines. In his description of differences emerging in labour costing in dressmaking, Gomberg drew attention to the silk industry, which set its labour rates in New York 'on the basis of an industry wide engineered unit system keyed to an operator making a complete garment' (ibid.: 79), whereas cotton dress manufacture operated on the basis of piece rates for each component of a garment stitched by sections of workers. It was the New Yorkers who demanded the extension of industry-wide piece rate setting to eliminate inter-shop and inter-area competition, while allowing their employers to adopt the section work process.

The Amalgamated Clothing Workers of America and its employers undertook in the mid-1930s and early 1940s a plan to standardize labour costs across geographical markets in the men's suit sector, which was governed largely by collective bargaining arrangements. Because of differences in product specification and local piece rates in each plant and market, the union set about establishing stabilization, with the cooperation of the manufacturers. Garments were classified into six grades, with Grade 1 the cheapest. The parties established uniform minimum wage costs for an entire garment, beginning with Grades 1 and 2 and later extended by 1941 to Grades 3 and 4. The wage cost established was then divided among the job classifications that made the respective garment grades, with appropriate piece rates filed with the union's Stabilization Department (Abernathy et al. 1999).

> 'We realised of course that the employers who had gone in for industrial engineering were chiefly motivated by prospects of rationalising costs. Still having already had some experience jointly with our New York dress employers in unit system price settlements, we could not fail in discerning in these new engineering efforts certain definite advantages to labour, provided the employment of these time study techniques was not the sole business of management. We saw that labour must be afforded participation on an equal basis as well as an opportunity to share in the benefits of these techniques in order to protect the interests of the worker and his earnings.'[46]

Later, as a trade union consultant on productivity for the Marshall Plan, William Gomberg believed that this role was to take the techniques of scientific management and convert them from substitutes for collective bargaining into tools for collective bargaining, a position adopted eventually by the leadership of the National Union of Tailor and Garment Workers and other European unions (Carew 1987).

For Gomberg:

> 'The foundation for joint operation has been a system of standard data which is in a constant state of revision and development. The acceptance of this standard data does not imply a belief in its technical infallibility but rather it provides a convenient basis for a contractual relationship' (1948: 177).

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[46] David Dubinsky: Foreword to Gomberg (1948).

A route map

What scope is there for trade union involvement on this issue, and what would be the necessary preconditions? One possible way forward for global union involvement might be a summit, convened by the ILO, of PTS-based companies specializing in the apparel industry and leading companies that retain an industrial engineering function, the ITGLWF and key affiliates with experience in work study and the International Apparel Federation and the leading multi-stakeholder initiatives in the sector to discuss the principle of a schedule of SMVs for apparel items as per the international harmonized system (HS). Since PTS providers are commercial businesses, the onus would be only on agreeing absolute SMVs based on an agreed 'virtual' factory environment. There would be no disclosure of the respective codes each PTS provider uses as the basis for their proprietary systems of work measurement.

These could constitute a new international standard that would serve as a *basis* for the negotiation of the labour cost element in transactions with each local factory. However, If we assume that those companies that are committed to delivering a living wage establish and 'ring-fence' a sustainable labour cost in the pricing of a garment, how would anyone know this had been passed on by the supplier, given the privacy of commercial relationships between buyer and vendor? Most certainly for fashion retailers in the UK, keen to escape the moral gaze, one would expect a public declaration that a company was indeed now paying a living wage as per the procedure outlined above. Moreover, a disclosure to this effect with specified amounts would need to be made to the workforces in question. This could be done on an annual basis. However, a concern shared by all parties – buyers included – is the question of assurance. How can stakeholders be confident that additional money intended for workers in the cost price does in fact reach the workers? For unionized workplaces, one possible way forward suggests itself from experience in South Africa, where the Southern African Clothing Workers Union concluded a sectoral agreement in 2008/09 that provides for a dedicated productivity incentive bank account to be set up that is ring-fenced for the introduction of a plant-level productivity incentive scheme. Within a two-month timeframe, workplaces covered by the agreement are expected to have agreed the modalities of the incentive scheme and how the incentives are to be paid. This is without prejudice to any existing bonus scheme and must not result in any deterioration of terms and conditions.[47]

Where South Africa differs from other parts of the global apparel industry is in its unparalleled extent of trade union workplace organization and recognition. What steps would need to be taken to implement such a scheme where no union exists? Freedom of association is a fundamental right that has barely been allowed to be exercised in the sector (Miller 2008). Yet it is difficult to envisage how sustainable labour costing can work without the issue of efficiency (systems of production management and workplace industrial relations) being addressed by collective bargaining, where a workplace union has access to the technical expertise of an outside trade union. Where unions do not exist, buyers and factory management should publically reiterate the guarantee of non-victimization in the event of joining a trade union in line with the freedom of association and collective bargaining statements of principle found in the respective codes of conduct of fashion retailers addressed in this paper (ITGLWF 2009). Workers and worker representatives will require access to expertise on productivity bargaining in clothing manufacture

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[47] Section 7 of the 2008/09 Substantive Agreement entered into between the Cape Clothing Association; the Consolidated Association of Employers of Southern, African Region; the Eastern Province Clothing Manufacturers' Association; the Free State and Northern Cape Clothing Manufacturers' Association,; the Natal Clothing Manufacturers' Association; the Transvaal Clothing Manufacturers' Association; and the Southern African Clothing and Textile Workers' Union (or 'the union').

from a worker/trade union perspective. A challenge for the trade unions in the developed (buying) countries will be to harness the learnings made under collective bargaining prior to the accelerated migration of production under the Multi-Fiber Arrangement and to disseminate these across the supply chain before they are lost as full-time officers and workplace union representatives retire. Democratically elected workers or employee committees will not be privy to these learnings and, moreover, will fail to satisfy freedom of association if they are prevented from affiliating with the broader trade union movement.

One potential stumbling block remains. Where sustainably costed transactions are isolated occurrences in a make-to-order environment where there are multiple buyers, how are principles of equity to be tackled in the factory where workers may not have access to the 'living wage' lines? (see Miller and Williams op.cit.). Providing workers can rotate on to such work, then annual negotiations or distributions of the living wage bonus can apply to the whole factory.

Box 2: Marks & Spencer Plan A Commitments for 2010 to 2015

Implement a process to ensure our clothing suppliers are able to pay workers a fair living wage in the least developed countries we source from, starting with Bangladesh, India and Sri Lanka by 2015. We will achieve this by ensuring that the cost prices we pay to our suppliers are adequate to pay a fair living wage and by rolling out our ethical model factory programme to ensure the cost price benefits are paid to workers.

Source: Marks & Spencer (2010).

Box 3: Homeworkers' product sewing time manual

5.1 What is the product sewing time manual? The product sewing time manual is an electronic library of sewing operations that have been created using the General Sewing Data method of measuring machine operator movements to establish the sewing time to make a garment.

The manual is the first such tool in the world to offer a guide to companies on sewing times not dependent upon engineers doing GSD studies for each company. The manual provides industry with up to date information that many companies could not afford to pay for on their own.

5.2 Access to the product sewing time manual. The full GSD studies for a whole garment will be made available to accredited companies for the purpose of maintaining work records and to build a library of sewing times. Once accreditation has been approved a company will be given a password to access the internet based product sewing time manual.

5.3 Agreement regarding wage rates. The rates built into the manual times include an hourly rate based upon skill level 3 of the Clothing Trades Award as amended from time to time.

The rates include rest and fatigue times based upon ILO standard rates for the circumstances homeworkers work in and also include times for unbundling and bundling and quality check. Further details about the rates and manual are provided on the website.

5.4 Copyright agreement. The agreement of use of the manual is determined by the arrangement between GSD and the Homeworkers Code of Practice Committee (HWCPC). Accredited companies are required to complete a letter of agreement to use the manual as determined under this arrangement.

5.5 Upgrading information. The HWCPC is committed to the continued upgrade of the manual.

5.6 Application of the product sewing time manual to the individual Company. The manual is intended to be a general reference. The manual is not intended to meet each individual company's requirements, since fashion trends change frequently and there is a significant variation between the style and range of clothing offered by companies across seasons.

Conclusions

A key finding of this report is that fashion retailers both in the UK and elsewhere are generally not engaging in any systematic costing of the labour input into garment manufacture. It would appear that those companies that have never owned and managed any manufacturing capacity have tended not to invest in industrial engineering expertise that would allow labour costing to be carried out. On the supply side, there appears to be widespread variation in labour costing expertise, and, in FOB negotiations, true labour cost is lost in efforts by both parties to achieve a target margin on each transaction. Consequently, compliance on pay and working conditions remains compromised. While non-compliance on payment of wages, absence of overtime payments, persistence of unrealistic production targets and abusive supervisory management may have their origins in other buying practices, this paper suggests that the imprecise clarification of labour minute values and factory efficiency may be a significant factor in the chronic persistence of factory non-compliance on wages and overtime.

When allowance is made for factory efficiency, incentive and the local factory payment system, it is possible, however, to calculate a labour minute value for any garment, and to ensure this incorporates a living wage element. Since conditions and efficiencies in each factory are likely to

vary along with garment styles, working from predetermined standard minute values can provide the basis for fact-based negotiation. Such fact-based negotiation must involve a shared understanding on the part of a buyer and a supplier of agreed SMVs for garment styles and components and an assessment of the factory's efficiency.

Such fact-based negotiation should result in a separately itemized labour cost in a commercial contract between buyer and supplier and become a new industry-wide buying practice with buyers incentivized to move down this path. The additional amount of money identified as the living wage element could be deposited in a productivity incentive account and the workers invited to organize themselves to negotiate the details of a factory-based scheme with management. The argument is made further that this basis for compliance will be realized only through greater collaboration between buyers and suppliers in the area of production management. For this to occur successfully, greater involvement of workers in this process will be absolutely necessary, since there will need to be engagement in a proper factory assessment of worker performance and factory efficiency arising from this new practice.

Worker involvement must evolve under adherence to the principles of freedom of association and collective bargaining, preferably under application of a non-victimization guarantee and a trade union access agreement. Democratically elected workers or employee committees will not satisfy freedom of association, since such bodies must be free to affiliate with trade union organizations outside the factory that can provide expertise in this crucial area for social compliance.

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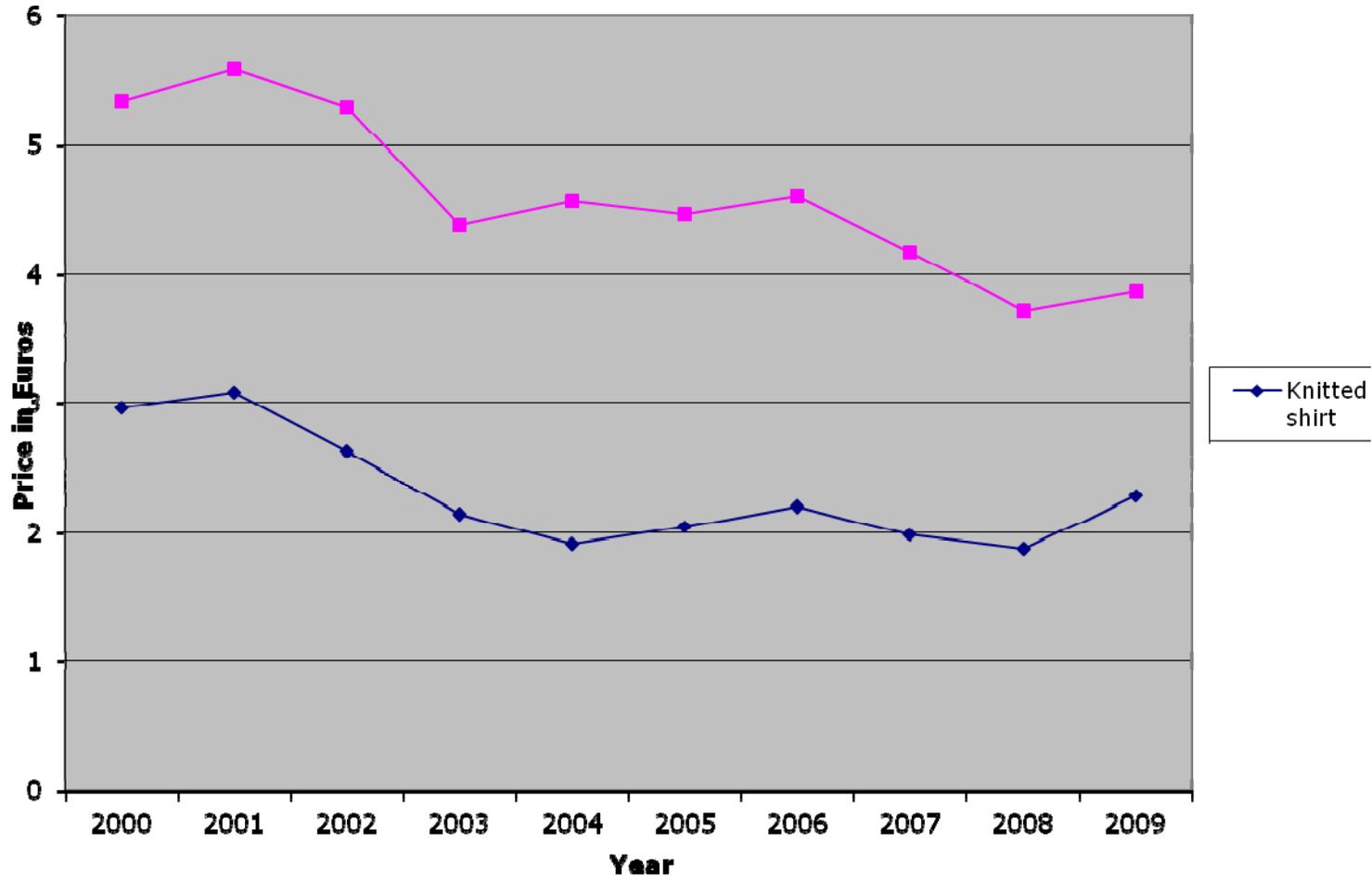
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Annex 1: Cambodia polo and jeans prices 2000-2009
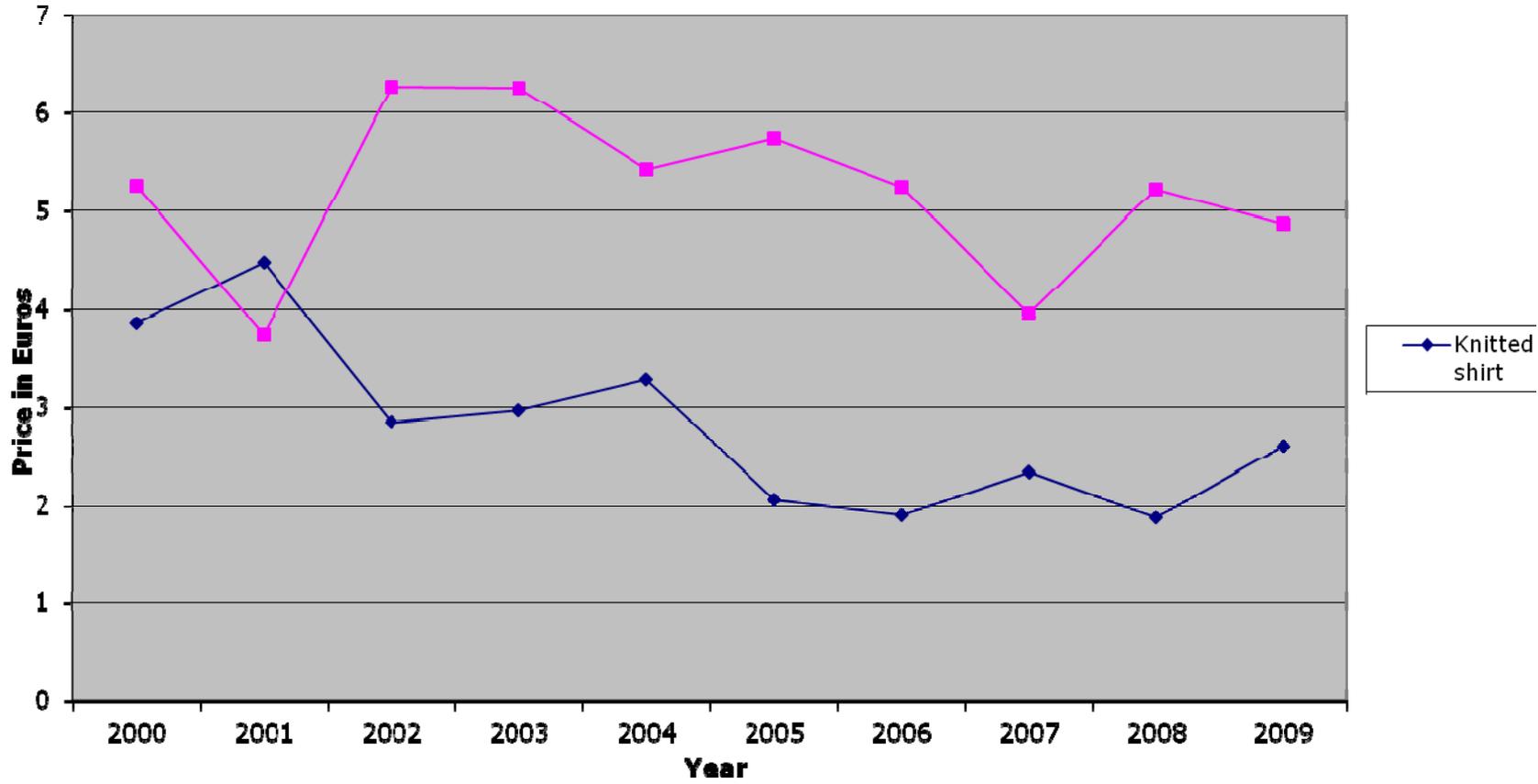
Annex 2: Bangladesh polo and jeans prices 2000-2009

Annex 3: Living wage unit labour cost on selected garments with the AFW as a target figure

> '[…] global brands and retailers should come under pressure to factor the AFW into their price negotiations with manufacturers. This **is linked to the issue of fair pricing by sourcing companies**. Since wages represent only a small percentage of the retail price – normally 0.5 - 1.5 per cent – the AFW Alliance believes that the supply chain has the capacity to absorb such wage increases without too much difficulty' (Merk 2009: 60).

Because the AFW has been regionally and externally determined, the following calculations are based on these target figures and do not use individual factory payment system data.

Let us remind ourselves of the values:

		Living wage target figure	Current monthly minimum wage
Bangladesh	475 PPP x 22.64 =	10,754	Tk 1,662
China	475 PPP x 3.45 =	1,638.75	RMB 687
India	475 PPP x 14.67 =	6,968.25	Rs 4,238
Indonesia	475 PPP x 3934 =	1,868,650	IDR 972,604
Sri Lanka	475 PPP x 35.17 =	16,705.75	Rs 5,046
Thailand	475 PPP x 15.93 =	7,566.75	B4,368

Sourcing country: Bangladesh

Garment style	SMV[48]	@75% efficiency	@35% efficiency	Current minimum wage (Tk)	AFW (Tk)	Unit AFW unit labour cost: formula AFW/12,480 x SMV[49] in Tk	Living wage unit labour cost in US cents[50]
Men's hoody	16.148	21.531	46.137	1,662	10.754	**14**	**20**
Men's sweatshirt	12.484	16.645	35.668	1,662	10.754	**11**	**16**
Men's jog pant	23.179	31.625 30.905	66.225	1,662	10.754	**20**	**29**
Ladies' polo	18.545	24.727	52.985	1,662	10.754	**16**	**23**
Men's polo	20.587	27.448 27.449	58.820	1,662	10.754	**18**	**26**
Men's formal shirt	22.091	29.349 29.455	63.117	1,662	10.754	**19**	**27**
Men's leisure shirt	44.502	53.290 59.336	127.148	1,662	10.754	**38**	**55**
Men's Western five-pocket jean	20.737	27.642 27.649	59.197 59.249	1,662	10.754	**18**	**25**
T shirt	10.565	14.086 14.087	30.185 30.186	1,662	10.754	**9**	**13**

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[48] Courtesy of GSD.
[49] Rounded figures – based on standard SMV not allowing for factory inefficiency.
[50] Calculation undertaken using rates of exchange as at 11 February 2010.

Sourcing country: China

Garment style	SMV[51]	@75% efficiency	@35% efficiency	Current minimum wage (RMB)	AFW (RMB)	Unit AFW unit labour cost: formula AFW/12,480 x SMV[52] in RMB	Living wage unit labour cost in US cents
Men's hoody	16.148	21.531	46.137	687	1638.75	**2**	**29**
Men's sweatshirt	12.484	16.645	35.668	687	1638.75	**1.6**	**22**
Men's jog pant	23.179	31.625 30.905	66.225	687	1638.75	**3**	**44**
Ladies' polo	18.545	24.727	52.985	687	1638.75	**2.4**	**35**
Men's polo	20.587	27.448 27.449	58.820	687	1638.75	**2.7**	**42**
Men's formal shirt	22.091	29.349 29.455	63.117	687	1638.75	**2.9**	**44**
Men's leisure shirt	44.502	53.290 59.336	127.148	687	1638.75	**5.8**	**85**
Men's Western five-pocket jean	20.737	27.642 27.649	59.197 59.249	687	1638.75	**2.7**	**38**
T shirt	10.565	14.086 14.087	30.185 30.186	687	1638.75	**1.4**	**19**

Sourcing country: India

Garment style	SMV[53]	@75% efficiency	@35% efficiency	Current minimum wage (Rs)	AFW (Rs)	Unit AFW unit labour cost: formula AFW/12,480 x SMV[54] in Rs	Living wage unit labour cost in US cents
Men's hoody	16.148	21.531	46.137	4,238	6,968.25	**9**	**19**
Men's sweatshirt	12.484	16.645	35.668	4,238	6,968.25	**7**	**13**
Men's jog pant	23.179	31.625 30.905	66.225	4,238	6,968.25	**13**	**28**
Ladies' polo	18.545	24.727	52.985	4,238	6,968.25	**10**	**21**
Men's polo	20.587	27.448	58.820	4,238	6,968.25	**11**	**24**
Men's formal shirt	22.091	29.349 29.455	63.117	4,238	6,968.25	**12**	**26**
Men's leisure shirt	44.502	53.290 59.336	127.148	4,238	6,968.25	**25**	**54**
Men's Western five-pocket jean	20.737	27.642 27.649	59.197 59.249	4,238	6,968.25	**12**	**24**
T shirt	10.565	14.086 14.087	30.185 30.186	4,238	6,968.25	**6**	**13**

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[51] Courtesy of GSD.
[52] Rounded figures – based on standard SMV not allowing for factory inefficiency.
[53] Courtesy of GSD.
[54] Rounded figures – based on standard SMV not allowing for factory inefficiency.

Sourcing country: Indonesia

Garment style	SMV[55]	@75% efficiency	@35% efficiency	Current minimum wage (IDR)	AFW (IDR)	Unit AFW unit labour cost: formula AFW/12,480 x SMV [56] in IDR	Living wage unit labour cost in US cents
Men's hoody	16.148	21.531	46.137	972,604	1,868,650	**2,400**	**26**
Men's sweatshirt	12.484	16.645	35.668	972,604	1,868,650	**1,800**	**19**
Men's jog pant	23.179	31.625 30.905	66.225	972,604	1,868,650	**3,450**	**37**
Ladies' polo	18.545	24.727	52.985	972,604	1,868,650	**2,775**	**30**
Men's polo	20.587	27.448	58.82	972,604	1,868,650	**3,075**	**33**
Men's formal shirt	22.091	29.349 29.455	63.117	972,604	1,868,650	**3,300**	**35**
Men's leisure shirt	44.502	53.290 59.336	127.148	972,604	1,868,650	**6,675**	**71**
Men's Western five-pocket jean	20.737	27.642 27.649	59.197 59.249	972,604	1,868,650	**3,075**	**32**
T shirt	10.565	14.086 14.087	30.185 30.186	972,604	1,868,650	**1575**	**16**

Sourcing country: Sri Lanka

Garment style	SMV[57]	@75% efficiency	@35% efficiency	Current minimum wage (Rs)	AFW (Rs)	Unit AFW unit labour cost: formula AFW/12,480 x SMV [58] in Rs	Living wage unit labour cost in US cents
Men's hoody	16.148	21.531	46.137	5,046	16,705.75	**22 Rupees**	**18.7 cents**
Men's sweatshirt	12.484	16.645	35.668	5,046	16,705.75	**17**	**14**
Men's jog pant	23.179	31.625 30.905	66.225	5,046	16,705.75	**31**	**27**
Ladies' polo	18.545	24.727	52.985	5,046	16,705.75	**25**	**22**
Men's polo	20.587	27.448	58.82	5,046	16,705.75	**28**	**24**
Men's formal shirt	22.091	29.349 29.455	63.117	5,046	16,705.75	**30**	**26**
Men's leisure shirt	44.502	53.290 59.336	127.148	5,046	16,705.75	**60**	**51**
Men's Western five-pocket jean	20.737	27.642 27.649	59.197 59.249	5,046	16,705.75	**28**	**24**
T shirt	10.565	14.086 14.087	30.185 30.186	5,046	16,705.75	**14**	**12**

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[55] Courtesy of GSD.
[56] Rounded figures – based on standard SMV not allowing for factory inefficiency.
[57] Courtesy of GSD.
[58] Rounded figures – based on standard SMV not allowing for factory inefficiency.

Sourcing country: Thailand

Garment style	SMV[59]	@75% efficiency	@35% efficiency	Current minimum wage (THB)	AFW (THB)	Unit AFW unit labour cost: formula AFW/12,480 x SMV [60] in THB	Living wage unit labour cost in US cents
Men's hoody	16.148	21.531	46.137	4,368	7,566.75	**9.8 =**	**29**
Men's sweatshirt	12.484	16.645	35.668	4,368	7566.75	**7.6**	**22**
Men's jog pant	23.179	31.625 30.905	66.225	4,368	7,566.75	**14**	**42**
Ladies' polo	18.545	24.727	52.985	4,368	7,566.75	**11**	**33**
Men's polo	20.587	27.448	58.82	4,368	7,566.75	**12**	**38**
Men's formal shirt	22.091	29.349 29.455	63.117	4,368	7,566.75	**13**	**40**
Men's leisure shirt	44.502	53.290 59.336	127.148	4,368	7,566.75	**27**	**80**
Men's Western five-pocket jean	20.737	27.642 27.649	59.197 59.249	4,368	7,566.75	**13**	**36**
T shirt	10.565	14.086 14.087	30.185 30.186	4,368	7,566.75	**6**	**18**

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[59] Courtesy of GSD.
[60] Rounded figures – based on standard SMV not allowing for factory inefficiency.

Annex 4: GSD, QED and the 'virtual environment' [61]

Introduction

GSD (General Sewing Data) is a 'Predetermined Time Standards' (PTS) system that enables the user to analyse the time it takes to perform known human motions under defined conditions. GSD is subsequently used to predetermine working methods and times and to derive 'Standard Time' (see definition below).

Whilst GSD is a recognized, scientific approach to method analysis, work measurement and quantification, true 'Standard Time' may vary from manufacturer to manufacturer and from factory to factory, depending upon the manufacturing processes, the physical environment, the equipment and technology used, and any local payment conditions enjoyed by the workers.

In order to establish Standard Time for generic products in a multiple supply base, it is therefore necessary to define the 'average' environment in which the manufacturing processes are 'visualized'. When using GSD to visualize manufacturing methods (as opposed to studying them live in a working environment), one must make quantified decisions as to the type of working conditions expected in the supply of goods. Assumptions must be made with respect to the manufacturing process, the physical and the equipment and technology used.

This is referred to as the '*Virtual Environment*' or '*VE*'. The following VE was compiled from an extensive survey of manufacturers and an 'average' factory environment derived therefrom.

All GSD analysis work has been undertaken with due care and attention to accepted Industrial Engineering practices, as set out by the International Labour Office, Geneva, in its journal *Introduction to Work Study, 4th Edition*. GSD is used as the means of defining method and, thereby, Basic Time. Standard Time is computed by adding Relaxation Allowance, Machine Delay Allowance and Contingency Allowance to the Basic Time

Inclusions

QED SMVs (Standard Minute Values) take account of all Direct activities that occur in the manufacturing process and include Ancillary/Helper and Examination Operations; Cutting Room Activities (with the exception of pre cloth spreading activities, such as Fabric Storage, Fabric Inspection and Fabric Relaxation); Making Up/Sewing activities; Pressing and Finishing (as appropriate); Pack and Carton activities.

QED SMVs do not include activities associated with the Finished Goods to Warehouse nor Dispatch/Transport.

The Virtual Environment (VE) used to generate QED data relies upon the following assumptions:

1. *Manufacturing process*
   a) Manual progressive bundle system
   b) Barcoded bundle tickets.

2. *Physical environment*
   a) Air conditioning
   b) Temperature – 13C to 23C
   c) Humidity – <75 percent
   d) Atmospheric conditions – good
   e) Lighting – good

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[61] Adapted from information provided courtesy of GSD.

f) Allowances – applied as per ILO principles and in line with the physical environment appropriate to any given workplace.

g)

3. Equipment and technology

Cutting and fusing
a) Spreading – automated machine
b) Cutting – straight knife, band knife and dye as appropriate
c) Number & Bundle – manual
d) Fusing – flat bed and continuous feed as appropriate.

Sewing, examination and pressing
e) Lockstitch Single Needle – automatic backtack, underbed trimmer, 4500 RPM, 4.5st/cm
f) Lockstitch Multi Needle – automatic backtack, underbed trimmer, 3750 RPM, 4.5st/cm
g) Overlock – suction cutter, 5500 RPM, 4.5st/cm
h) Chainstitch Single Needle – fixed blade cutter, 4500 RPM, 4.5st/cm
i) Chainstitch Multi Needle – fixed blade cutter, 3750 RPM, 4.5st/cm
j) Flat Seam Single Needle – fixed blade cutter, 5000 RPM, 4.5st/cm
k) Flat Seam multi Needle – fixed blade cutter, 4500 RPM, 4.5st/cm
l) Button – manual
m) Buttonhole – automatic cycle
n) Guides/Jigs/Folders – industry standards are available
o) Examination – end of sewing line and component examination where appropriate due to premium quality requirements.
p) Pressing – hand iron and flat bed with vacuum
q) Presentation & Packing – manual
r) Additional machinery – it is assumed that wherever quality standards require automated machinery, such industry standard machinery is available.

4. Incentive scheme
a) Incentive conditions apply (2000 TMU/Minute – 100 Performance on International 0 – 100 rating scale, therefore equivalent to MTM120 High Task)
b) Worker to enjoy the Minimum Wage as set by local law, with additional Performance based incentive scheme.

Definitions

Basic Time

'Basic Time is the time for carrying out an element of work at standard rating.'

Standard Time

'Standard Time is the total time in which a job should be completed at standard performance.'

Standard Performance

'Standard Performance is the rate of output which qualified workers will naturally achieve without over-exertion as an average over the working day or shift, provided that they know and adhere to the specified method and provided that they are motivated to apply themselves to their work. This performance is denoted as 100 on the standard rating sand performance scales.'

Relaxation Allowance

'An addition to the Basic Time intended to provide the worker with the opportunity to recover from the physiological and psychological effects of carrying out specified work under specified conditions and to allow attention to personal needs. The amount of allowance will depend upon the nature of the job.'

Machine Delay Allowance (Special Allowance)

'Special allowances may be given for any activities which are not normally part of the operation cycle but which are essential to the satisfactory performance of the work.'

Contingency Allowance

'A contingency allowance is a small allowance of time which may be included in a standard time to meet legitimate and expected items or work or delays, the precise measurement of which is uneconomical because of their infrequent or irregular occurrence.'

Disclaimer

It is accepted that where variations occur in the actual manufacturing environment when compared to the Virtual Environment defined herein, differences in Standard Time may occur. The Licensor will not accept liability for any loss whatsoever, howsoever caused, and any third party implicitly agrees that, through its use of GSD, GSD Enterprise, GSD Quest and/or QED, no liability for loss of any kind shall fall upon the Licensor.

Annex 5: Global manufacturing apparel labour costs in 2008

Apparel Manufacturing Labor Costs in 2008

In US$ per Hour – Including Social Charges

Countries	Labor Cost US$/Hour	Labor Cost US$/Hour Bgldesh=100	Labor Cost US$/Hour Vietnam=100	Labor Cost US$/Hour India=100
Bangladesh	0.22	100	58	43
Cambodia	0.33	150	87	65
Pakistan	0.37	168	97	73
Vietnam	0.38	173	100	75
Sri Lanka	0.43	195	113	84
Indonesia	0.44	200	116	86
India	0.51	232	134	100
Haiti	0.49-0.55	236	137	102
China III (Inland)*	0.55-0.80	305	176	131
Egypt	0.83	377	218	163
China II (Coastal 2)	0.86-0.94	409	237	176
Nicaragua	0.97-1.03	455	263	196
Jordan	1.01	459	266	198
Russia	1.01	459	266	198
Philippines	1.07	486	282	210
China I (Coastal 1)	1.08	491	284	212
Malaysia	1.18	536	311	231
Thailand	1.29-1.36	600	347	259
Colombia	1.42	645	374	278
Bulgaria	1.53	695	403	300
Guatemala	1.65	750	434	324
Tunisia	1.68	764	442	329
Dom. Rep.	1.55-1.95	795	461	343
S. Africa	1.75	795	461	343
Honduras	1.72-1.82	805	466	347
Peru	1.78	809	468	349
El Salvador	1.79	814	471	351
Lithuania	1.97	895	518	386
Morocco	1.97	895	518	386
Turkey	2.44	1,109	642	478
Mexico	2.54	1,155	668	498
Poland	2.55	1,159	671	500
Brazil	2.57	1,168	676	504
Costa Rica	3.35	1,523	882	657
Slovakia	3.44	1,564	905	675
Slovenia	3.55	1,614	934	696
Romania	4.03	1,832	1,061	790
Latvia	4.23	1,923	1,113	829
Hungary	4.45	2,023	1,171	873

Source: Jassin – O'Rourke Group, LLC

©EmergingTextiles.com (1998–2008)

Source: *Emerging Texiles* available at: http://www.emergingtextiles.com/?q=art&s=080523-apparel-labor-cost&r=free (last accessed 3 February 2013).

Annex 6: Fact-based negotiation for a living wage – a guide for buyers

Stage 1

Develop in-house expertise on work study and industrial engineering using PTS based on a virtual factory environment and/or consult a relevant PTS database to establish the SMV for a particular garment. The SMV will need to be as close to reality as possible and make allowances for style modifications.

Stage 2

Establish a revised SMV based on a discussion with the supplier about the degree of variance from the VE and the reasons why this cannot be met.

Stage 3

Negotiate with the supplier an efficiency factor for the specific garment.

For example: buyer wishes to order a five-pocket Western jean with an SMV of 20.737.[62] Following consultation with the supplier, the buyer establishes that the factory is running at 75 percent efficiency. To make an allowance for this the following formula is used:

(SMV/Eff) x 100   20.737/75 x 100

Stage 4

Calculate a monthly total of available minutes based on the standard week 26 days x 8 hours x 60 = 12,480 minutes per month.

Stage 5

Establish the monthly labour charge for the factory in question based on the following elements:

- Monthly basic wage cost (exclusive of overtime) using average pay grade of direct workers
- Attendance allowance (if paid)
- Seniority (if paid)
- Holiday pay
- Transport allowance
- Meals.[63]

Stage 6

Establish in consultation with the trade unions a living wage figure for the country/province where the supplier is located.

Stage 7

Divide total monthly living wage labour charge by a monthly minute figure.

Example: LW/12,480 = living wage minute value

Stage 8

Multiply this figure by the number of minutes required to make the garment @ agreed efficiency.

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[62] Based on GSD figures.

[63] There is an argument in certain countries that workers are so malnourished because of poverty wages that meals should be provided gratis since without a midday meal in particular their productivity would decline.

e.g. 27.6 minutes? @ 75 percent efficiency and

e.g. 59 minutes? @ 35 percent efficiency

Stage 9

Since standard performance is generally defined as working at a rate a third above the work rate of a non-incentive worker, piece rate workers should be able to earn the minimum (living wage) rate at 75 percent performance and an incentive bonus of a third on achievement of 100 percent performance.

Stage 10

Add a percentage for social costs where such are paid.

Stage 11

Identify the labour charge separately on the costing sheet alongside the fabric, trim and new CM element, which now consists of overhead and profit.

Stage 12

Enter the labour charge as a non-negotiable item in the commercial contract.

Stage 13

Continually track and update wage data in the supply base.

Stage 14

Create a two-tiered system of buyer bonuses:

a. For carrying out a full wage calculation during price negotiations;
b. For paying a living wage in this process,

payable only on receipt of compliance data.

Stage 15

Since there will be an inevitable discrepancy between SMV and factory efficiency, engage in a productivity/efficiency enhancement programme with full involvement of the union in the factory, which seeks to address improvements in machines, methods and materials and engage with the supplier in a long-term stability pact.

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