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The textile firm and the management of labour: Comparative perspectives on the global textile industry since c 1700

Arthur McIvor (University of Strathclyde, Glasgow, Scotland)

Introduction

Recently, the scope of labour history has widened to incorporate the study of employers, firms and management and there has been a sharper recognition of the need to critically analyse the nature of capitalism in order to understand social and labour relations. Research on the behaviour of firms has demonstrated a far more complex vision of the importance of different management policies and practices over time, divisions between different factions of capital, the often contradictory nature of employer strategy and the close interaction between capital and labour, resulting in a more nuanced and diverse history of workplace relations across time and space.[1] However, while the historical studies of employers within particular country settings has increased, international comparative historical analysis of employer practice has been rare. Such approaches are important in developing theoretical conceptions of employer practice beyond the contexts of specific national economic settings. Two studies which stand out in this respect are Littler's *The Development of the Labour Process in Capitalist Societies* and Tolliday and Zeitlin's edited volume *The Power to Manage?* Both provide historical and comparative analysis of employer policy and practice in a range of different country settings. A key finding from these studies is that rather than a single means of capitalist control, employers have diverged significantly between countries in their labour management policies as well as in the timing of the evolution of control from indirect, simple and more coercive means to more sophisticated, bureaucratic and consensual practices. Moreover, what these comparative studies reveal is a more complex interpretation of factors which have shaped such variation, with both economic contexts and differing institutional environments playing important roles in shaping employer strategies and behaviour.[2]

This paper focuses on the textile firm, providing a comparative examination of the changing patterns of organisation and behaviour amongst employers, managers, and others who controlled production in global textile manufacture since c 1700. Attention is concentrated on five issues: The first section explores labour control mechanisms within pre-industrial and proto-industrial modes of production, examining home-work, artisan and guild textile manufacture, together with the role of merchants in the 'putting-out' system. The second section investigates the textile firm in the era of the modern, mechanised factory system and the evolution of more direct and frequently authoritarian work regimes, tempered in some cases by traditions of company paternalism. The third section explores the responses of textile firms to the challenge of trade unionism and organised workers' protest movements, including the role played by employers' organisations in industrial relations, supported, in some cases, by the state. The fourth section evaluates the key changes in managerial practice in the textile firm associated with scientific management and the bureaucratisation of work in the twentieth century and the extent to which the textiles sector shared in this 'managerial revolution'. The final section makes some brief comments about international and multinational textile firms.

1. The guild and merchant era: From home-working to 'putting out'.

Throughout much of the world through most of the period under review the spinning and weaving of cloth has taken place within the home, as a primary activity or as a supplementary craft undertaken by family members whose main livelihood came from working the land. Within this system, the obtaining of raw materials, the supervision and management of the labour process, the maintenance of the basic technology (such as the spinning jenny or the loom) and the distribution of the final product (where there was a surplus beyond the needs of the family) frequently lay in the hands of the workers themselves. A high level of workers' control and autonomy thus existed over the pace and rhythm of work, epitomised, perhaps in the tradition within much of Western Europe of taking a rest day on 'St Monday'. Within this mode of production we know very little about the exercise of authority and control, though it appears that social relations varied within the family unit, ranging from matriarchal dominance in some countries through to the more dominant West European and Islamic country norm of patriarchal control. In the latter, the sexual division of labour normally saw men responsible for strategic decision-making and undertaking the weaving processes and women and children in subordinate positions, doing the carding and spinning.

In urban centres in the 17th and 18th centuries, textile production was frequently regulated by associations of artisans who, together with the merchants, exercised varying degrees of power within town councils. The guilds of wool, cotton and silk spinners and weavers typically operated to protect the interests of the textile artisans by restricting entry to the craft and fixing product prices. In some places guilds imposed strict apprenticeship regulations laying down training and probationary periods of up to 10 years and used their political influence to introduce licensing laws to forbid 'interlopers' from the trade, with fines and imprisonment acting as deterrents. In the urban centres, textile production thus increasingly took place in small workshops owned by a master craftsman or merchant who employed a handful of journeymen or ‘probationers’ and the requisite number of apprentices. Often the latter would have been kin. Again, we know little of the internal dynamics of the medieval textile workshops. Apprentices though appear to have been subject to a very strict regulatory regime as they learnt the trade, but when fully-trained artisans they exercised a great deal of autonomy and independence over their work hours and pace of production within what appears to have been very loose managerial control structures. The extent of ‘responsible autonomy’ reflected medieval values such as the exaltation of skill, ‘community’ and distrust of competition. Vertical integration also characterised this mode of production in that the guilds were usually associations of both the craft masters and the fully trained artisans. Whilst predominant in Europe, the guild system was widely exported to European colonies.[3] Guild control began to erode in the 18th century in Britain, though in other areas of the world – such as the Middle East - the system survived intact well into the twentieth century. In Egypt, for example, urban textile production was dominated by artisans working in small workshops (typically employing 3-4 workers, often kin), controlled by the urban guilds (with Cairo dominating production) well into the twentieth century.[4]

Commonly merchants were also involved in textile production in the 17th and 18th centuries, developing what was known as the ‘putting out’ (or contracting out) system. There were various forms of such decentralised manufacture worldwide, though typically it involved a merchant purchasing raw material in bulk and arranging to distribute it to homeworkers and to workshops to be spun and woven, with the final product then being uplifted by the merchant for selling on. In Spain, such a system of atomised production was referred to as ‘industrialists without factories’.[5] In the Netherlands, this involved merchants ‘putting out’ raw material for manufacture to the family farms largely in the Twente district.[6] Such merchants appear to have rarely interfered directly in the labour process itself and the workers typically retained a great deal of discretion and control over the rhythm of work within a system constrained mainly by the imperatives of completing the task. However, in some cases, merchants extended control through the provision of machinery (sometimes rented by the workers) and through the provision of credit which could lead to spiralling indebtedness, as in Russia and Mexico.[7] In Turkey, the merchants came to directly control textile workshops in places like Damascus, Nablus and Mosul imposing direct forms of supervision over the work.[8] In areas of South America and in Tsarist Russia such contracting out involved more coercive regimes, where forced or ‘bonded’ labour was employed.[9] In Brazil, Portugese colonists controlled textile production using black slaves in supplementary production on large sugar and tea plantations prior to the abolition of slavery there in 1888.[10]

Homeworking, the guild system and merchant-controlled contracting systems prevailed in many countries well into the twentieth century. As Beinin has commented, where labour and food were cheap there remained little incentive to mechanise production or move to more sophisticated managerial techniques.[11] In India in the 1930s, for example, the textile factories employed around half a million whilst there were several million hand loom weavers[12] Similarly, in China household based production and ‘putting-out’ predominated well into the twentieth century – indeed effectively until the communist era, when rapid, state initiated industrialisation over two decades replaced handicraft methods with modern, factory-based production of textiles.[13] For the merchants, such a system had distinct advantages, involving relatively little capital investment in fixed plant and machinery, maximum flexibility, low levels of risk and the option to allow workers to manage themselves.

2. Mechanised textile firms and the real subordination of labour?

Textile manufacture was the first sector to make the transition to mechanised factory production, initially in the United Kingdom, and this mode of production involved quite different social relations and structures of authority and control. Undoubtedly, the development of the capitalist labour process, as Marx hypothesised, facilitated greater degrees of subordination over labour as machines deskilled work, factory owners and overseers imposed draconian discipline over their workers (what Marx termed 'despotic' control) and, to varying degrees, governments supported or colluded in such intensified exploitation. However, in reality this was a complex and uneven process and there is now much debate over the validity of Marxist labour process theory. Disagreements exist over the timing and extent of transformations in authority and control at work at a number of levels, not least amongst those scholars influenced by Marxist ideas.[14] Recent work suggests that it would be wrong to assume that the factory system necessarily involved a change from indirect to direct forms of supervision and control.[15] Moreover, the process of industrialisation is now recognised to be much more uneven than was once imagined – hence 'traditional' modes of work organisation and control persisted and frequently proliferated in tandem with an emerging modernised sector. It follows that employers were not as omnipotent, united or as empowered as the orthodox Marxist model suggests, nor workers as powerless. Comparative analyses across countries (such as this project) throw up evidence of common patterns of employer strategies and managerial practices but also highlight a rich mosaic of experience at any given point in time across global textile production within different cultural and institutional contexts.

Nonetheless, with higher levels of capital investment in machinery and in the provision of work space (workshop or factory), textile firms increasingly came to expect greater degrees of control over labour. Sharpened notions of employers' right (or 'prerogative') to manage emerged with the factory system and this was encapsulated in more coercive modes of supervision through overseers, foremen and plant managers. The rather loose and informal monitoring of the labour process common in homework and the workshop gave way to tighter discipline and control – as E.P. Thompson famously hypothesised from the English case, irregular 'task'-based work gave way to regularised time discipline, with the factory clock (or bell) determining the work day.[16] Moreover, what was new was that the speed of the power-driven machines determined to a large extent (though not fully) the pace of work. Whilst technical control was taken to a more sophisticated level by Henry Ford, it was pioneered in cotton textile factories. The new textile factory regimes were thus blatantly more exploitative (for e.g. of child labour), especially in the early unregulated phase of textile factory development (in the UK through to the 1830s, and elsewhere frequently until late into the nineteenth century and even beyond). Thus, traumatic injury rates were extremely high in the early phases of mechanised factory production, as were long-term chronic industrial diseases associated with textile production, such as respiratory disability (especially in the dustiest preparatory processes in the card and blowing rooms). The maximisation of profits within such factory regimes invariably damaged workers' bodies to a lesser or greater degree.[17]

Coercive modes of control dominated this early phase of factory-based textile production. However, the authority of the firm could and frequently was challenged, rather than passively accepted by the workers. The USA provides a good example of the shifting frontier of control in factory textile production in the nineteenth century, the contested nature of authority in the mills and, ultimately, the capacity of owners and managers to impose their will upon mill workers. Blewett emphasises the way in which US millowners successfully exploited divisions within the labour force based on ethnicity, religion, race and gender in both the traditional sector in New England and in the emerging sector in the southern states.[18] In response to trade union organisation, strikes and protest, millowners countered with draconian tactics, including widespread use of the lock-out, blacklisting, victimisation and the use of anti-trade union contracts. U.S. millowners in the main refused to bargain collectively with unions and insisted on their unilateral right to manage their mills without 'interference', as they thought fit. Consequently, they rejected any open scrutiny of the order books as a breach of their sacrosanct prerogative to manage their businesses. Yarn and cloth were also stockpiled as a safeguard against strikes, whilst the growth of state intervention (for example in Massachusetts with the 1874 Factory Code) in the late nineteenth century was widely ignored. In the 19th century US textile mills, an authoritarian employer regime of fear and intimidation appears to have prevailed across most of the sector, though there did exist a significant paternalist strand of family-owned companies in Philadelphia engaged in higher quality, specialised batch production where more consensual social relations largely prevailed.[19] The latter perhaps illustrates the point pressed strongly by Gospel (after Chandler) that product markets, labour markets and company structures significantly influenced employers' labour relations policies.[20]

In the UK, and other Western European countries, this struggle for control at work was less one-sided and the dominance of textile firms never assured and ultimately subject to mediation due to sustained worker organisation and protest. Here social control mechanisms developed by the firm were invariably more flexible and more diverse. In some regions, the discipline of the firm remained relatively loose. In Barcelona, artisanal autonomy prevailed in the late nineteenth century, with male spinners controlling the technology, curtailing the employment of female labour and winning concessions including the right to smoke and drink on the job and to start work after five minutes 'leeway'[21] Paternalist modes of control also persisted in many textile firms across Europe where employers strove to dominate social relations within the wider community as well as within the mill, attempting to cement workers' sense of loyalty and attachment to the firm through the provision of a wide range of benefits beyond the wage. The company welfare 'package' could include the provision of accommodation, schools, shops, community halls, parks and playing fields, as well as company pensions and other forms of social insurance, such as sick pay and ad hoc accident compensation. Joyce has shown such factory regimes to be prevalent in cotton and wool manufacture in northern England in the Victorian period, and such company paternalism persisted longer in the Coats mills in Paisley, Scotland.[22] Again, the influence of product markets, labour markets and company structures are evident in the determination of firms' choices. Textile company paternalism appears to have developed deepest roots in more isolated rural settings (where a labour force had to be attracted and retained), where family-ownership prevailed (as in Bolton, England and Paisley, Scotland) and where the firm produced finer, quality or specialised products, monopolising markets (such as thread manufacture by Coats), or at least where competition was less fierce. At one extreme, this could produce a much more humanitarian factory regime, as with the New Lanark mills in Scotland during the managerial era of the communitarian Robert Owen and at the Amoskeag mills in New Hampshire, USA in the nineteenth century.[23] At the other extreme, paternalist control could be overbearingly despotic, as with the textile mill dynasties in the Twente region of the Netherlands, epitomised perhaps by Jacob Spanjaard in the early twentieth century, dubbed 'the god of Borne'[24] and in early twentieth century rural mills in Catalonia, where such control could extend even to the banning of left-wing literature.[25] Nor was such company paternalism solely a Western phenomena. There was a strong tradition of welfarism in Japan where the provision of housing and education were well-established strategies by the late nineteenth century textile firm for managing a largely female labour force.[26]

In Asia and South America, in different cultural settings and especially where workers rights were limited and traditions of democratic government weak or non-existent, textile factory regimes could be notably more draconian, fitting more closely, perhaps, the Marxian model of 'despotic' control. In some countries, state ownership of textile firms in the nineteenth century facilitated autocratic modes of control. Egypt provides an example where textile workers organised in guilds retained a considerable degree of control over the labour process in the state-owned factories in the early/mid-nineteenth century, but the armed forces were used to ensure the forced labour remained in the mills.[27] Textile firms in colonial regimes could use forced and slave labour, as in Brazil where the labour force consisted of a mix of slaves and free wage labour toiling for up to a 17 hour day in the 1880s frequently under the control of English managers.[28] In Mexico before independence (1811) Indian and 'unfree' labour worked in urban obrajes (larger workshops) under the repressive authority of Spanish businessmen and supervisors (one such firm was described as 'a dark prison').[29] Autocratic control and domination continued to characterise the mills in Mexico City through the nineteenth century, with long 15 hour work days imposed upon 'Mexican and dark-skinned' workers by company owners who were mostly 'foreign and white'.[30] Elsewhere, as in Shanghai before the Second World War, textile firms practically enslaved a largely young, female workforce recruited from the countryside, housing them in squalid dormitories and imposing military-style discipline upon them. Bribery and corruption permeated China's main textile centre in Shanghai, with textile firms acquiescing in the control that organised crime (the Green Gang) exercised over labour recruitment ('buying' single women on contracts of 1-3 years).[31]

Late-nineteenth century Russia provides, perhaps, an archetypal example of coercive control within textile production. Mechanised cotton manufacture developed rapidly from the early 1840s, in part through the sponsorship of the Tsarist state, and became very concentrated geographically with a relatively small number of very large plants employing over 1,000 workers. As Dave Pretty has shown, draconian factory regimes characterised by over-bearing supervision, complex fining systems for indiscipline and the widespread employment of child labour prevailed.[32] The autocratic authority and control structures of the firm in Russia were also bolstered by a repressive state, where trade union organisation and strikes remained illegal until 1905. Transgressors could find themselves exiled to Siberia. Textile firms maximised profits in this period by increasing the monitoring of workers, ignoring the weak and ineffectual factory legislation that was introduced (for example in Factory Acts in 1885 and 1897), extending payments by results wage payment systems, rate-cutting and increasingly replacing more expensive male textile workers with women. Tight control over labour costs was deemed imperative by the autocratic family dynasties in Russia who ran these giant textile corporations, necessitated by their dependency upon less efficient technology and low profit margins. The extent to which textile workers were central to the strike waves and revolutionary ferment in Russia from 1905-17 owes much, as Pretty has demonstrated, to such a volatile, provocative and alienating combination of workplace and civil repression.[33]

All this is not to suggest, however, that factory regimes were necessarily worse in the largest firms. In several countries evidence indicates that it was the smaller textile firms, trying to compete on the margin, where conditions were worse, local and state labour codes were subverted and the work impacted most critically upon the bodies of employees.[34] Some of the larger firms were also notably paternalistic, even in countries where repressive modes of control dominated, such as Brazil.[35] However, relatively speaking there only appears to have been a very thin strand of genuinely welfarist textile firms scattered across the industry globally in the eighteenth and nineteenth centuries. Where corporate paternalism was most developed, perhaps, was in Japan where textile firms pioneered a distinctively welfarist labour management strategy – with state support – as an alternative to class confrontation in Western capitalism. The example set by textile firms congealed into a more widespread paternalist managerial philosophy in Japan in the twentieth century.[36]

3. Rising to the challenge of the trade unions: Organised capital in textiles

Textile firms across the globe showed varying tendencies to organise together, often playing important roles within national employers' movements in the nineteenth and twentieth centuries. The cementing pressures that drew millowners away from their traditional 'rugged individualism' towards a sharpened sense of class consciousness exhibited in collective organisation and co-ordinated action also differed markedly in different contexts. However, there appear to be three primary interlocutors: the rise of trade union organisation and worker militancy; government intervention in matters which impinged upon profitability in textile manufacture; and, finally, changes in market conditions – usually associated with perceived or actual loss of market share. Where much debate continues to rage, however, relates to just how powerful and united employers were. One view, based largely on Marx, defines employers as omnipotent and united in ruthless pursuit of their class interests. An alternative 'revisionist' interpretation stresses the relative weakness of employers in the face of organised labour and their inability to combine together to impose their will. Here centripetal as well as centrifugal tendencies are recognised. Like other employers, textile firms were divided by their competitive relationship with one another, by differences in company structures and styles of management and by diverging product markets in different fibres, yarn and cloth qualities.[37] Nonetheless, what appears evident from this comparative survey of textile firm behaviour across a number of countries is just how prevalent and effective collective activity by firms could be in neutralising the challenge from organised labour.

Amongst the earliest examples of collective organisation amongst textile firms can be found in the UK. In the 1740s and 1750s cotton textile merchants and manufacturers in the Manchester region combined together, firstly to force a reduction in wages and subsequently to deal with a strike of checkweavers.[38] Over the following century, as industrialisation developed, a tapestry of local town-centred employers' associations emerged in Northern England and Central Scotland. The Glasgow Master Spinners' Association and the Oldham Cotton Masters' Association – in permanent existence from the 1830s – provide archetypal examples. Prior to the middle of the nineteenth century the labour relations strategies of such nascent textile firm associations were blatantly coercive. Firms came together to provide a united front to preserve managerial prerogatives where companies felt such threatened by the 'encroachments' of worker militancy and trade union formation. In essence this was a struggle over the distribution of power and in this early period the textile employers' organisations mustered an impressive array of weapons against the unions. These included use of the lock-out to widen the area of struggle, neutralise the unions' use of the selective strike tactic and literally starve workers into submission. This would typically be supplemented with attempts to replace recalcitrant workforces with non-unionist, 'blackleg' labour and various methods of victimising strikers and labour activists, ranging from enquiry and discharge notes to character referencing systems and formal blacklisting to prevent troublemakers getting work elsewhere. Moreover, such strikebreaking methods were usually sanctioned by the state and the law courts, creating an environment of fear and intimidation which could castrate early attempts to unionise textile workforces. By the end of the nineteenth century cotton textile firms in the UK were very well organised with both the associations of master spinners and master weavers recruiting over half of the machine capacity in the industry.

Whilst divisions between millowners remained significant, collective organisation empowered textile firms, with the early phases of the employers' movement often characterised by inflexible and confrontational labour relations strategies. In Mexico, for example, when workers went on strike to reform draconian work regimes in 1906, textile firms organised together to form an association and to lock-out the entire industry in a particularly bloody confrontation. The companies had the support of the Diaz government who imposed a settlement favourable to the bosses and ordered troops to disperse strikers in Orizaba, leading to the killing of 'scores' of strikers. This succeeded in maintaining unilateral managerial authority in the Mexican textile mills, at least until Diaz was opposed in the Revolution of 1911.[39] In the Netherlands, the late 1880s saw the emergence of particularly aggressive textile manufacturers' associations in the Twente region who used the lock-out weapon effectively to undermine the textile trade unions in the two decades or so before World War One.[40] In the early years of the interwar depression the Netherlands Textile Employers' Federation went on to spearhead a costs' reduction drive which included a 10% wage cut and a rise in work hours from a 48 to a 53 hour working week. In Spain, Catalan industrialists combined in the last quarter of the nineteenth century to counter a strong and militant tradition of craft organisation in textiles. Amongst their tactics were heavy use of the lock-out weapon and exploitation of their political muscle in a period of Conservative government in Catalonia. The outcome was a phase of work intensification, deteriorating wages and work conditions for textile workers in Barcelona from the 1870s and a resurgence of strict labour discipline in the mills.[41] Similarly in Japan the collective organisation of the largest textile companies (in the Japan Spinners' Association) significantly bolstered the capability of textile firms to keep unions out of the workplace and retain company-level bargaining and largely authoritarian paternalistic work regimes up to the 1940s.[42] In Egypt, the repression of trade unions lasted even longer with employers organising together to impose crippling lock-outs to destroy any attempt by workers to organise. As Beinin has shown, the 1938 textile lock-out in Egypt led to the arrest of around 100 strike leaders and the imprisonment of 50, and was followed by the reorganisation of the industry into smaller workshops to neuter trade union power.[43] The persistence of unilateral managerial control in textile firms in Egypt is indicated in contemporary labour relations, where company unions prevail, some workers are working on only three month recruitment contracts and others are required to sign undated letters of resignation when they are hired to facilitate instant dismissal.[44] As the author notes, these authoritarian responses typify a country with an abundant labour supply and a textile industry attempting to compete using older technologies and work methods against more developed and technically superior competitors. To an extent the same was true of late Tsarist Russia, though here the responses of textile firms to the growth of trade unions and strikes from 1870 to the 1910s was particularly atomised, with little evidence of employer collusion or formal association.[45]

Such coercive modes of control by textile firms and their collective organisations gave way over the course of time in many countries – and especially in the developed economies of Western Europe – to increasing levels of collaboration with the trade unions. Experimentation with 'corporatist' or procedural forms of control superseded coercive methods in the West. The textile employers' associations frequently played a key role in this institutionalisation of industrial relations. In part this was a rational response to the growing capacity of textile workers to get organised, as well as their increasing propensity to successfully exploit the strike weapon. In some countries, such as Mexico, this transition was precipitated by political change and characterised by much violence. The Mexican Revolution of 1911 marked a watershed in textile firms' autocratic factory regimes with the textile unions exploiting the opportunity to challenge managerial authority and win reformed labour codes, including industry-wide collective bargaining, enshrined in the Labour Contract of 1927.[46] Symbolic of this erosion in the authority of Mexican textile firms was their failure to reverse this extension of workers' control in this period in the law courts.

In countries such as the UK a symbiotic relationship between the unions and the employers' associations developed from the late nineteenth century and the transmogrification of labour relations towards 'corporatist' accommodation occurred more peacefully. Each side fed off one another with the trade unions and employers' movements growing largely in tandem. Recent research has shown the extent to which workers were an agency here (rather than powerless victims) and how flexible and adaptive firms were in reacting to changed circumstances (such as times of full employment and periods of war such as 1914-18), developing more sophisticated control mechanisms or simply making the best out of prevailing power relations. For some, this involved attempting to incorporate unions into bureaucratic systems and use unions to police their own members. This was most evident, perhaps, in the emergence of national wage bargaining agreements and stage-by-stage disputes procedures whereby no strikes or lock-outs were permitted until formal discussions had been exhausted. However, the pace of change differed across and even within countries. In Great Britain, for example, Fowler has shown how the generally larger firms in the wool and worsted sector in Yorkshire widely employed female labour and succeeded in largely keeping trade unions out of the workplace before World War

One, in marked contrast to the experience in cotton textile firms in Lancashire.[47] Scotland followed a similar pattern so that in both Yorkshire and Scotland levels of collective organisation amongst firms were weak and collective bargaining poorly developed in contrast to Lancashire.[48]

For textile firms, these 'corporatist' methods acted as an alternative labour control strategy and could be extremely effective in the twentieth century in containing the challenge of labour. The Netherlands, Denmark and the UK provide examples.[49] Sometimes, as in Britain, Denmark and Japan, these institutionalised arrangements for dealing with industrial relations followed major confrontations between capital and labour in textiles. In Denmark, formal industry-wide collective bargaining came in 1898 after a nation-wide industry lock-out for three months in which the Copenhagen textile association amalgamated with provincial manufacturers. The so-called 'September Compromise' which emerged saw the employers recognising the unions right to bargain collectively, whilst the unions accepted the employers' sacrosanct prerogative to manage their own workplaces without interference.[50] In Japan, annual collective bargaining in textiles spread following an infamous, bitter strike in 1954 at the Omi Kenshi works – a notoriously autocratic employer.[51] As workers became better organised across the global textile industry in the twentieth century, textile firms and their associations were invariably forced to give ground and concede degrees of worker participation in the determination of wages and conditions of employment. At the extreme, this could significantly curtail textile firms' ability to introduce new technology or changes in work organisation, such as increasing the ratio of looms operated per worker.[52] However, outcomes of such struggles over the organisation of work differed markedly across different countries and even in different sections of textile manufacture within countries.

4. 'Scientific' management and the bureaucratisation of work in textile firms

The extent of delegation of labour control to employers' associations differed significantly across the global textile industry. In many countries firms remained the primary locus of employer power and traditions of collective activity were transitory and at best apparent only in periods of crisis. Russia would be an example. Elsewhere, whilst employers' associations dealt with labour contract issues, such as wages, work hours and conditions, firms retained much autonomy over the organisation of production, including the introduction of new technology and management systems, such as Taylorism (e.g. U.S.A. and Japan). In some cases in the twentieth century the initiative in labour management and personnel policy was shifted back from the collective organisations to the individual textile firms. This was evident in the UK and other Western European countries, with the declining membership and eroding importance of the textile employers' associations from the 1930s on.[53] These developments accelerated in the second half of the twentieth century and were also associated with changes in company structures in an era of textile multi-nationals, globalisation and in the pervading bureaucratisation of work in textiles worldwide. In short, textile firms were increasingly moving from indirect forms of labour management, including putting-out, internal-sub contracting and external delegation to employers' organisations towards more direct forms of recruiting, controlling and managing their labour forces within the firm.

These tendencies in the behaviour of firms were evident earliest, perhaps, in the USA, the birthplace of the architect of 'modern' scientific management, Frederick Winslow Taylor. Taylorism essentially challenged employers to directly manage their labour, to discover how the work was done through time study (using the stop watch), then to reorganise production to benefit from maximum division of labour. In the process, craft unionism was undermined as work was progressively de-skilled and down-graded. In the U.S.A. and in Western Europe one of the main mechanisms used by textile firms to implement Taylorism after World War One was the Bedaux system. In his study of the bureaucratisation of work Littler has shown how a significant number of textile firms brought in the Bedaux management consultants as a precursor to radical reorganisation of the labour process.[54] It is likely, however, that many more firms experimented with elements of scientific management whilst eschewing the whole package and sometimes the expense of bringing in outside agencies such as Bedaux.

The extent, timing and pace of this internal management revolution differed significantly, however, across the textile industry globally. Textile firms operating in overstocked labour markets (such as in Egypt and India), or where forced labour persisted (such as in China) had little incentive to either introduce new technologies or such costly (and sometimes provocative) reorganisations of work. Moreover, as Chandarvarkar has argued, divisions within the employers ranks in Bombay (the premier cotton textile city in India) prevented a common front and undermined the rationalisation of work drive in the inter-war years.[55] Such divisions within textile capitalism undoubtedly constrained managerial work reorganisation elsewhere. Conversely, scientific management spread rapidly in the USA and areas of US economic influence after the Second World War (including Germany and Japan). Elsewhere, managerial complacency and poor systems of management education retarded the spread of new ideas on personnel management, including in the UK textile manufacturing sector. It was not until well after World War Two that work study was taken up in earnest in British textile firms, a factor which contributed in no small measure to the sharp contraction of the industry from the 1920s.

Moreover, the managerial revolution associated with Taylorism did not occur within textile firms in a vacuum in the twentieth century. The capacity of textile firms to introduce and sustain such sophisticated systems of labour control depended upon a range of variables, including prevailing enterprise culture, the structure of the firm, the nature of product and labour markets, the attitudes of labour and unions, and other contingent circumstances, such as the attitude of state agencies and war. Importantly, some firms *chose* not to initiate such changes, preferring systems of responsible worker autonomy or negotiated and agreed evolutions in labour processes. In the Netherlands it was the Second World War and post-war labour shortages that provided the key stimulus to the bureaucratisation of work in textile firms, but this was initiated within a context of worker participation and joint consultation, with the pill sweetened by a significant extension in company welfarism.[56] The process also occurred more rapidly in the Netherlands in the cotton sector (based in Twente) than in wool manufacturing (centred around Tilburg). In Japan, scientific management was grafted on to a pre-existing and deep-rooted commitment to corporate paternalism, with the latter largely surviving intact in Japan in contrast to the U.S.A. where welfare capitalism atrophied from the 1920s and Taylorism largely triumphed. This success of American capitalism was the product not just of distinctive proprietorial and antiunion cultural values, but also the economic and political resources that U.S. firms could muster to neutralise trade unionism and facilitate a thorough-going transformation of work organisation and control.[57] The sheer size of US textile companies represented an enormous conglomeration of power in itself: the average unit size of US textile firms by the 1970s was almost ten times the West European average.[58] By 1980, only around 7% of US textile workers were unionised.[59] Where trade unions were powerful and militant, however, the imposition of Taylorism, through Bedaux or other guises, could be fiercely contested, either officially, or through militant rank-and-file protest.

The outcomes of such skirmishes across the fluid and ever-changing managerial frontier of control differed widely. In South America, the Bedaux system appears to have spread into textile firms most extensively. In Argentina, the Textile Employers' Confederation spearheaded the drive to rationalise work. This led to a massive confrontation with the unions in 1959-60 over the introduction of time and motion studies, culminating in the sacking wholesale of strike committees, worker take-overs of plants and the drafting in of the police to break up strikes. The resulting 1961 Productivity Agreement sealed the employers victory and opened the way to unrestricted exploitation of Taylorite work systems in Argentina. These developments were endorsed after the right-wing military coup in 1976 which saw militant trade unions outlawed and employers power consolidated.[60] A similar if somewhat less bloody process unfolded in Uruguay where the major textile companies in wool and cotton introduced Taylorism after 1918, resulting in fundamental changes in work organisation. Amongst the changes were a marked rise in the degree of monitoring, with the ratio of supervisors and planners to production line workers increasing rapidly. The collective agreement struck in 1988 registered the power of textile employers in Uruguay to manage their firms as they thought fit, without any interference from the unions, especially in the sphere of work organisation and production.[61]

However, in a number of cases employer innovations and ‘scientific’ managerial systems were moderated by organised labour, resulting in a more humanised production regime. This happened, for example, in countries such as Denmark and the UK in relation to the ‘more looms’ issue in the period 1920-50. However, Denmark also provides a good example of how collective bargaining could undermine labour resistance to the rationalisation of work. In a renowned ‘unofficial’ strike at the Silkeborg mill in 1934 the Textile Union disowned strikers, refused benefits and ultimately expelled all strikers from membership. Whilst negotiations ensued, the break-down in discussions left management open to introduce the Bedaux system on their terms, with the union counselling workers to obediently follow the orders of management.[62]

Therefore, it would be wrong to interpret the spread of scientific management and ‘rationalisation’ as entirely unproblematic, inevitable, or, indeed, as the most advanced weapon in the armoury of modern-day competitive capitalism. Moreover, it was not only the developed capitalist economies of the West that utilised such methods, but also some of the underdeveloped capitalist economies and centrally planned economies. Of the latter, the USSR stands out as a major protagonist for Taylorism, counting amongst its strongest supporters none other than Lenin in the early 1920s. Furthermore, in the West, including in Britain and the USA, textile firms operating in declining markets were as likely to pursue traditional modes of intensifying work, as to embark fully on a systematic programme of work study and reorganisation. In other words, continuities in labour management strategies are evident as well as mutations over time. The Boott Cotton Mills in Lowell Massachusetts provide an example of such a company which commissioned but never implemented a Taylorite efficiency survey in the 1900s, continuing thereafter to squeeze labour costs using traditional methods. The outcome was a deterioration in work conditions and wages which may have exceeded anything that scientific management would have achieved.[63]

5. The textile multinationals

The multinational firm represents, perhaps, both the most recent transformation in ownership structure in global textiles and the most powerful expression of capitalist power over labour to date. In the second half of the twentieth century the trend in textile firms in the developed capitalist economies was towards horizontal and vertical integration, with mergers, take-overs and acquisitions occurring at an astonishing and unprecedented rate. Moreover, the biggest textile conglomerates opened up subsidiary factories throughout the world, and especially in the underdeveloped capitalist economies. Initially, this expansion beyond national boundaries occurred in regional spheres of influence – for the USA into South America; for Japan, into the Far East underdeveloped economies (such as Indonesia) and for West European countries into their colonies and ex-colonies. Clairmonte and Cavanagh estimated that in 1980 'control of textile processing is in the hands of a loose oligopoly, with approximately 35 to 40 large textile corporations exerting a paramount force on world markets'.[64] In Europe, Courtaulds and Coats became the two largest textile manufacturers by 1980 and both invested heavily outside of their base in the UK. Coats employed 66,000 with interests in 30 countries (including India, Pakistan, Hong Kong, the Philippines and Turkey), whilst Courtaulds employed 153,000, with factories in China, Thailand, Sri Lanka, Turkey, Tunisia, Morocco and the Philippines. By the end of the century, about two-thirds of the turnover of these companies was generated outside of the UK.[65] Similar developments occurred in the USA, across Western Europe and in Japan, representing a massive, seismic decline in investment and in employment in textiles in the developed capitalist economies. The calculated economic rationality of such giant firms is expressed by this statement by the Netherlands textile multinational Gamma Holdings NV in 2004:

> Activities that show a structural lack of profitability or no longer fit in with the strategy are divested. Risk is limited by spreading the activities over various regions and market segments.[66]

Concurrent with these developments was a major shift by textile capitalists from natural fibres into synthetic fibres, starting with nylon and rayon, and this sector became the most concentrated and transnational. In 1950, man-made fibres constituted just 20% of total world textile output; by the 1980s, it had surpassed 50%.[67]

Table 1: The World's Leading Producers of Synthetic Fibres, 1979

Firm	Country of Ownership	Share of world Fibre Capacity	Share produced overseas
Du Pont	USA	14%	21%
Akzo	Netherlands	6%	85%

Celanese	USA	6%	27%
Monsanto	USA	6%	17%
Toray	Japan	4%	30%
Taijin	Japan	4%	43%
Hoeschst	Germany	3%	43%
Rhone-Poulenc	France	3%	53%
Courtaulds	UK	2%	24%
ICI	UK	2%	76%

Source: V. Cable and B. Baker, *World Textile Trade and Production Trends*, London 1983, Table 35, cited in P. Dricken, *Global Shift, Industrial Change in a Turbulent World*, London, 1986, p. 243.

The textile multinationals reaped massive benefits from the shifting of manufacturing to under-developed countries. In many cases they enjoyed political privileges, subsidies and tax breaks in adopted countries and invariably fewer 'social' overheads, such as not having to contribute to company pension schemes or insure against accident risks. Double standards were common in home-based transnational plants compared to subsidiaries, not least on occupational health and environmental controls. Amongst the attractions were cheaper transport costs and, crucially, the potential to exploit abundant, cheap and poorly organised labour, including child labour, in textile factories, but also through sub-contracting and 'out-sourcing'. The multinationals could by-pass the more extensive labour codes of the developed capitalist economies and the well-established and powerful trade unions. In turn, these companies forced alien management regimes, including Taylorism, upon labour forces (often predominantly female) lacking traditions of collective organisation and the capacity to protest as a consequence of over-stocked labour markets and, invariably, state repression of unions.[68] The expansion of Japanese multinational conglomerates into neighbouring South Asian States provides a case in point. The 'high tech' factories established with Japanese capital in Indonesia were estimated to have made around 300,000 Indonesians working in the handicraft sector unemployed.[69] In Bangladesh, workers' rights were widely ignored by the multinationals, as Nazma Akter, the General Secretary of the Bangladesh Independent Garment Workers' Union Federation, noted:

> Freedom of association is a fundamental right that almost all employers in the textile industry deny their employees. The big multinationals… are concerned about the working environment though not about workers' basic rights… Long working hours and employers' refusal to grant women maternity leave are some of the other recurrent problems… Some employers use the very nasty device of forcing workers to sign a letter of resignation at the same time as their recruitment contract…[70]

In the developed market economies, a combination of technological change (including computerisation and water jet looms), import penetration and corporate strategy to invest in cheaper labour markets (largely in underdeveloped economies) led to massive job losses in textile manufacturing. The EEC countries alone lost over one million jobs in textiles over the period 1960-1985 (and a further half million in clothing).[71] As textile manufacturing capacity and employment levels declined sharply in the developed capitalist economies, the textile conglomerates reaped the additional benefits of enhanced work discipline and control in their surviving home-based plants. The threat of closure and transfer of investment abroad facilitated wage cutting, labour discipline and work reorganisation and 'speed-up'. These deleterious effects were more apparent because such corporate strategies impacted severely upon specific communities in the developed market economies because of the regional nature of textile employment. Hence areas such as Lancashire in England, Paisley in Scotland, Quebec in Canada, Massachusetts and the Carolinas in the USA, Lorraine in France and the Wallonian region of Belgium have been hit particularly hard.[72] In Paisley, Scotland, the Coats plant was run down from employing 14,000 in 1960 to around 1,000 in 1981, whilst thread production was concentrated in the Madura Coats plant in India – employing 22,000 on wages at 13% of those in Scotland.[73] One activist in the Gap textile plant in Belfast commented on the futility of trying to compete with Russian Gap workers paid only 11 cents an hour, with Indonesian Gap workers sacked when they tried to form a union and Cambodian Gap employees who were shot at during a protest meeting. This had additional advantages for textile management in Western Europe and the USA because these developments severely undermined a well-unionised, solidaristic work culture, resulting in a collapse in union membership, the neutering of strike activity and severe loss of worker bargaining power in what remained of textile manufacturing in the developed capitalist economies.[74]

We do need to keep this in perspective, however. Looked at from the point of view of the under-nourished, poverty-stricken citizen in the under developed world, textile factory employment in a transnational company frequently offered more regular work, at higher wages, with more job security and greater individual freedom.[75] One study comparing the wages of Vietnamese factory workers employed by textile multinationals found annual wages to be roughly double that of workers employed in Vietnamese firms.[76] There were also some 'ethical' multinationals, such as the clothing group Benetton, though like the paternalist millowners in the nineteenth century, these were few and far between in the second half of the twentieth century. There have also been some attempts recently to address child labour, improve work conditions and workers' rights in the multinationals, with pressure being exerted by the I.L.O. and the International Textile, Garment and Leather Workers' Federation (ITGLWF) to establish 'Codes of Conduct'. However, whilst more work remains to be done on such questions, it appears that these countervailing forces have had little significant effect on the degenerative impact of the textile multinationals upon workers' rights and work conditions in both the under developed and the developed capitalist economies. Significantly, in his recent study of international textile trade union efforts to improve conditions for textile workers, Miller has argued that such initiatives have proved difficult, not least because of entrenched anti-unionism amongst textile employers' associations and some of the largest multinational textile companies.[77] In 2000, Neil Kearney, the General Secretary of the ITGLWF, dismissed the 'Codes of Conduct' initiated by some textile multinationals as 'public relations exercises' designed more to maintain the brand image than to genuinely improve workers' rights in developing market economies.[78]

Conclusion

This chapter has focused on the textile firm and examined the changing patterns of employer behaviour and management policies over time, both within the firm and collectively. Common features emerge in the narrative as textile firms evolved historically from small-scale enterprises and proto-industrial forms servicing local markets to large-scale transnational corporations competing in world markets using sophisticated power-driven and latterly automated and computerised technology. Over time, indirect and loose forms of labour control which allowed for considerable degrees of 'responsible autonomy' for workers (and especially the skilled artisans) gave way to more direct forms of control, tighter discipline and managerial authority. Thus coercive or 'despotic' forms of labour control clearly dominated in textile firms in the 18th and 19th centuries and the national chapters indicate a dogged persistence of such methods in many countries deep into the twentieth century. Over time, draconian factory regimes gave way to other more consensual methods whereby textile firms sought to legitimise their authority, including through the recognition of trade unions and extension of collective bargaining. In this process of protecting and advancing the interests of capital, employers organisations of textile firms came to play a key role, though latterly, across countries such as Britain, the USA, Sweden and France there has been a degree of disintegration of collective organisation and atomisation of industrial relations.[79] With such transitions, labour management methods were transformed, with a major shift within the firm towards more bureaucracy, higher levels of supervision and monitoring and incremental deskilling and fragmentation of job tasks.

These broad trends in the behaviour of textile firms and their associations, theorised as a transition from coercive to more consensual modes of labour management, embrace a very wide range of variation in experience and heterogeneity in behaviour, both between and within national boundaries. In reality, the prevailing picture at any moment in time appears to have been much more uneven, and differing, even sometimes contradictory, policies co-existed (such as scientific management and company paternalism). Indeed, this paper has emphasised the wide variety of company-level and organised responses in textiles to the rising challenge of worker organisation and strikes, ranging from company paternalism, institutionalised welfarism, mass production and automation, more flexible combinations of out-working and factory production, sub-contracting and delegation, outright coercion, collusion with the state, collective bargaining and forms of ‘procedural control’. Moreover, and importantly, the evidence suggests that the control that textile firms sought over labour was rarely complete, frequently challenged and almost everywhere subject to mediation as a consequence of workers’ organisation, resistance and protest. Textile employers appear to have been rarely omnipotent, frequently divided and sometimes completely powerless to withstand fundamental change.

Another major difference was between state-owned enterprises and private, competitive textile capitalism. In China, Russia and elsewhere through much of the twentieth century textile production came under the aegis of the state, ostensibly under more worker-orientated management regimes where production for needs was prioritised over the maximisation of profit. Whilst traditional managerial hierarchies continued to exist in textile plants in the communist bloc (with enterprise managers in Soviet Russia responsible directly to the relevant Minister for Textile Production), the degenerative pressures of competing in the world marketplace were nullified by a policy of producing for a ‘captive’ internal market itself closed off to external competition. Hence, wage standardisation, improved welfare (in a sector dominated by female labour) and more job security characterised such work regimes. On the other hand, labour control and discipline was maintained by the outlawing of free trade unions and repression of dissenters, and the inefficiencies associated with securing inputs (of raw materials and labour especially) often meant a staccato, 'stop-go' cycle of production, with episodes of short-time working followed by periods of intense activity and overtime in order to make up the planned production targets. Indeed, the imperatives of reaching (and indeed expectations of exceeding) 'the plan' may well have placed similar pressures upon textile managers and workers as experienced by those in the West.

Moreover, in both communist China and Soviet Russia textiles played an important role in the industrialisation process with the transition to the factory system concentrated in a relatively short time frame – literally over a couple of decades in both cases. Whilst there were differences between the centrally planned economies, factory-based textile production developed in a distinctively labour-intensive fashion, lagging somewhat behind the technological innovations and economies of scale evident in the West, with labour discipline sustained through a judicious mix of repression, concession and much social 'conditioning'.[80] In a sense the latter substituted as a managerial strategy for the company paternalism of Japanese mills (and elsewhere) which worked to cement attachment to the work regime. Such systems merit much more extensive analysis than has been possible here. What is apparent too is that the organisation of textile production and the management of labour in the centrally planned economies have been changing rapidly since the 1980s as these countries opened up to the market.[81] China is a case in point. Over the last quarter of the twentieth century textile production in China underwent a rapid transformation as the regime reorganised the industry along modern lines, re-aligning itself to export markets and bringing in much foreign expertise and investment to manage this transition, especially, though not exclusively, recruiting textile capitalists from Hong Kong. Shanghai was the fulcrum of this transformation and the main centre of the new export-orientated textile factories.[82] This has attracted much interest from the dominant West European and U.S. textile multinationals, including DuPont, who have invested heavily in textile manufacture in China, especially in artificial fibre manufacture.[83]

What is evident, then, is that textile firms across the globe adapted and developed their organisational forms and labour relations policies in an organic, experimental and incremental fashion in response to product and labour market pressures, technological change, the growth of trade unions and other prevailing circumstances. Organisational forms and strategies were also influenced by national culture, values and by national institutional factors, including labour law and government policy. This produced prevailing, common tendencies within capitalist textile production globally, including the key transitions towards the bureaucratisation of authority and work within the firm, the delegation of aspects of labour management externally, to employers' organisations, and the shift towards collective bargaining with labour as a key mode of legitimising the authority of the firm. However, it must be emphasised again that within these broad and converging patterns what is also evident is the diversity of textile firms' labour relations policies. Evidently textile firms exercised strategic choice and much divergence, division and lack of consensus existed within the ranks of textile capitalists globally, and frequently within national boundaries. More research is needed to disentangle this and to understand both the patterns and the determinants of textile firms' behaviour in labour relations. However, what is apparent is that textile firms' labour management policies varied widely across time and space; that workers and the state were powerful agencies influencing the strategies of textile firms and that technology and markets were important determinants of the policies of textile firms and textile employers' organisations. Whilst recognising the plurality of organisational forms and strategies, widely differing trajectories and the heterogeneity of textile capitalism worldwide, nonetheless it is important in the final analysis to appreciate the central importance of the profit motive and the market in determining the key historical mutations in the textile firm globally, from merchant-capitalist, through the family-owned enterprise of the early factory system, to the joint-stock corporations and the vertically and horizontally concentrated multinational conglomerates that now dominate world textile production.

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[5] Angel Smith, Carles Enrech, Carme Molinero and Pere Ysas, 'Spanish Textile Workers', p. 3-4.

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[8] Donald Quataert, 'Textile Workers in the Ottoman Empire, 1650-1922', pp. 6-7.

[9] Pretty, p. 8; Bortz, p. 2.

[10] Roberta Marx Delson, 'The Origins of Brazil's Textile Industry: An Overview', pp. 1-2.

[11] Beinin, p. 1.

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[14] Most famously, perhaps, Braverman's disagreement with Marx over the periodisation of 'real subordination' of labour – See Harry Braverman, *Labor and Monopoly Capital*, Monthly Review Press, New York, 1974.

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