The Diffusion of American Organizing Principles to Europe

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The slow productivity growth of the United States during the 1970s and 1980s has all but eradicated the remarkable esteem in which its industry was held in the years immediately following World War II. In Europe, wartime destruction left little doubt that economic structures had to be remade in accordance with two seemingly mutually exclusive models of the United States and the Soviet Union. Yet, though they were widely different, it was hardly coincidental that both models encouraged the growth of mass production run by large organizations. It had been the American example in the earlier part of the century that was the target of Soviet emulation. It was the American model, even if emulated only indirectly, that dominated the ideas of best practice in Europe, and elsewhere, at the midpoint of this century.

To a large extent, the postwar competition between the United States, Europe, and Japan was driven by a dynamic of the American exploitation of techniques of mass production and their diffusion to other countries. These techniques are the most pronounced expression of what can be called the dominant "organizing principles" of American corporations. These principles consisted of rules by which to rationalize work and to increase the volume and throughput of production and distribution.

Despite the importance of these principles to postwar competition, they did not emerge as sudden innovations, but evolved through a long period of trial and error dating back to the early 1800s. By the late 1800s, they were sufficiently advanced to allow such American firms such as the Singer Sewing Corporation and the Westinghouse Company to invest successfully in European operations. These early examples were harbingers of the rapid expansion of American exports to and investments in Europe.

The slow evolution and development of the techniques of the rationalization of
...spread first in the United States because of the larger settlement among immigrants with diverse skills, the scarcity of labor, and the demand created by an expanding population. This wave of change overwhelmed the traditions of craft workers, as well as the social institutions that supported such traditions.

In Europe, however, strong craft institutions reflected hundreds of years of development. The new American principles of organization could only be contemplated from the perspective of their challenge to the well-entrenched social relations of class and status. The economic challenge posed by the United States beginning at the turn of the century created tremendous interest in how the United States organized its work. But the dilemma facing European firms was how not only to understand these organizing principles, but how to adapt them to indigenous conditions.

This chapter sketches a brief history that examines the diffusion of two related, but different, sets of organizing principles that have characterized the American economy. The first set includes those principles that pertain to the rationalization of work in a broad sense. These principles were identified as the “American System of Manufactures” by the mid 1800s. Their most well-known expression are the ideas associated with Frederick Taylor at the turn of the century. The second set includes the principles by which American corporations came to be organized. The most distinguishable principle of this sort was to divisionalize authority by product line—what is called the multidivisional structure.

The history of these principles and their diffusion illuminates the obvious point that their adoption in Europe was accompanied in no small degree by indigenous adaptation. But a more important observation is that these adaptations varied depending on the nature of the existing social order. To highlight this issue, we focus primarily on the case of the United Kingdom where Taylorist ideas were only partially accepted, but the multidivisional structure, at least in name, was widely adopted by the leading corporations.

To a considerable degree, our argument bridges the recent work of Lazonick (1990) and Chandler (1990). Lazonick has detailed the strong argument that the United Kingdom failed at the shopfloor level to adopt new methods of organization that had been developed in the United States. Chandler, in an ambitious study, has argued that the U.S. dominance can be attributed to its development of large corporations that generated the “organizational capabilities” to manage large investments in production, distribution, and marketing.

The contribution of our argument is to clarify by a comparison among countries and kinds of principles how the concrete social conditions influenced the adoption and adaptation of new methods of organizing. The British lead in adopting the multidivisional structure was the outcome of the control of management over corporate organization; its lag in rationalizing work was an outcome of management’s weak position in the operation of the shopfloor.

We begin first with a discussion of the historical roots and development of the implications for understanding the diffusion of Japanese methods of organization.

The history we trace is not adequate to the task of establishing precisely the adaptations made to the adoption of American methods. Yet, it is clear that the principal difference was that standardization in the United States was motivated, to a great extent, by the shortage of skilled labor, whereas in Europe, the challenge was to combine in some way the indigenous craft organization of work with these new methods. To this extent, this history has a striking parallel to the description given in Whittaker’s chapter on the current grafting of Japanese practices onto the traditional organization of work in British industry (Chapter 7).

The American Organizing Principles of Work

The American System of Manufactures

The organizing techniques frequently identified with Taylorism are to be found in the changes occurring in the early part of the 1800s. By the mid 1800s, the “American System of Manufactures” had become a widely discussed form of organization. Starting in the armories of New England, it gradually spread throughout related industries. The primary property of this system was the use of standards and gauges to achieve the interchangeability of parts. Clearly, if progress was to made from reliance on the craft skills of workers operating individually, the evolution of the division of labor required standardization of the components of the final good.

There did not seem to be any recognition that interchangeability would itself permit mass production and that it even required a different organization of work. Rather, the early goal was to produce weapons whose parts could be easily replaced in battlefield conditions. The Springfield and Harper Ferry armories took over twenty years to reach a semblance of interchangeability (Smith 1977). Critical to this achievement was the invention of “go-no go” gauges to establish standardization. Once standardization had been identified as the key element, demand grew for accurate machinery.

The relationship between standardization and mass production itself was not established until the Civil War. Prior to 1850, in fact, the American factory grew very slowly in size; economies of scale were negligible (Atack 1985). It was the achievement of a modicum of standardization with less skilled labor that was the contribution of the early history of manufacturing in the United States.

After 1850, however, plant size grew rapidly. In part, this growth reflected the introduction of electricity that allowed factories to be freed from the constraints of a single belt driven by a large steam engine (Nelson 1980). For the first time, significant scale economies were achieved (James 1983; Atack 1985). Standardization laid the groundwork for the evolution of mass production systems.

This link between standardization and mass production was recognized early
on by the Singer Sewing Corporation. Benefitting from the diffusion of the armory technology, Singer, founded in 1851, took thirty years to achieve interchangeability in parts. The diffusion of the Singer method was not only international, but also interindustry, for it was Singer that introduced a systematic high-volume approach to manufacturing the woodwork inputs into its sewing machines.

**Taylorism and Mass Production**

The implications of standardization for mass production were limited, however, by the absence of control over the workplace. In the United States, the battle for control was fought in the later part of the 1800s and this struggle was no greater than in the mechanical engineering industries. In these industries, as elsewhere in the United States, the predominant organization was the inside contracting system, which delegated the hiring of workers to a contractor. In other industries, such as textiles, a supervisor was employed, but the role to drive the workers was largely the same.

It was in this environment that the piecework system began to develop. Taylor’s proposals were among many during this time, but they differed by establishing a so-called scientific method by which to measure productivity and, hence, pay of the individual worker, and by delegating responsibility to a central office rather than to a foreman or boss. In this sense, Taylorism was a method by which management took direct control over the workplace and gained, or so Taylor eventually argued, the cooperation of workers by setting a fair wage based on objective standards.

Introduced into several Philadelphia factories, Taylorism diffused slowly. By 1909, it had been tried, to varying degrees, by 172 firms, representing only 1.2 percent of all plants (Thompson 1914). Though the majority of these firms were industrial, 23 of them were in services, transportation, and government work. It is particularly important to note that Taylorism diffused most rapidly in labor-intensive and emergent industries (Nelson, 1980, 57). In fact, the spread of Taylorism was especially effective in public services and in offices. The height of this expression can be seen in the idea of secretarial pools, as it developed in the 1920s and 1930s (Davies 1982).

The widespread use of Taylorist methods is evident in the data collected by the National Industrial Conference Board in the 1930s and 1940s (see Baron, Dobbin, and Jennings 1986; Kochan and Cappelli 1984). By 1935, 34 percent of firms with more than 250 employees used time and motion studies; by 1949, this rose to over 50 percent; among firms with less than 250 employees, the percentages are 13 and 26 for 1935 and 1949, respectively. Though these percentages by sectors favor manufacturing (especially rubber, electrical manufacturing, and automobiles and parts), insurance and other services also engaged in time and motion studies and the majority used some form of job analysis.

By the end of World War II, Taylorist ideas of management had been fully routinized in the American economy. Accounting and evaluation systems also came to reflect the emphasis on measuring direct labor costs (Johnson and Kaplan 1987). The only major element dropped in the American practice was piece-rate pay. With the advent of assembly lines, the intensity of work was driven by the pace of machinery. In the office place, it was driven by increasing norms of professionalism.

A development closely affiliated with Taylorism was the further evolution of mass production systems. Whereas Taylorism was oriented toward the creation of functional departments and efficient incentives for individual work, mass production, and its most pronounced expression in Fordism, concerned the transformation of individual work into a coordinated flow. Though Fordism is frequently associated with large fixed capital investments and mechanization, the early applications were to labor-intensive operations. The first application was to convert the assembly operations of Ford from batch to flow production. Except for inventory and manual tools, the capital investment was minor. If demand increased, additional lines were simply formed adjacent to one another, sometimes spilling into the parking lot (Lewchuk 1987).

From the history of Hounshell (1984), the diffusion of standardization can be traced from the armories into a broad number of industries by 1900. The commonality of these industries were their newness and reliance on capital goods, as stressed by Rosenberg (1969). The early industries that dominated the U.S. economy, principally housing, furniture, and textiles (all needed for the westward expansion), decreased in importance over time. Increasingly, the American economy favored industries where large firms predominated: railroads, chemicals, automobiles, rubber, and electronics. And these were the industries where the new methods of organization, including the multidivisional structure to be discussed later, were rapidly adopted.

**Diffusion to the United Kingdom**

The transformation of the American economy from agriculture to industrial products had a major impact on Europe, especially on the United Kingdom. In the early part of the 1800s, a principal concern of Great Britain was the loss of technology and know-how, not only through the exportation of capital goods but also through the emigration of workers. Indeed, the development of the textile industry in the United States benefited considerably from the violation of British patents and the hiring of skilled workers (Jeremy 1981).

The growing strength of the U.S. machine-tool industry transformed the debate on the outflow of British technology and the controlling of exports to concern over import competition. By the end of the 1800s, the importation of American machinery was seen as critical to sustain a number of export industries in the United Kingdom. The bicycle industry is a stunning example of the success of this policy (Harrison 1969). Prior to the turn of the century, the American bicycle industry expanded overseas to Europe and Japan on the basis of standardized manufacturing techniques. Its dominant export position was lost to British companies, which adopted American machinery, lowered costs, and maintained a higher level of quality. The U.S. firms never successfully consolidated; standardization without mass production was not sufficient to compete in world markets.

In the 1890s, the loss of export markets to the United States caused a first recognition of the "labor problem" in the United Kingdom as an issue in international competitiveness. A common call was for increased management control over the shopfloor. The influential Colonel Dyer (who set up the Engineering Employers Association) argued, for example, for "the freedom to manage their own affairs
which proved so beneficial to the American manufactures as to enable them to compete... in what was formerly an English monopoly" (Lewchuk 1987, 70).

As a solution to this problem, the United Kingdom employers experimented with various forms of the piece-rate system, much like the experiments in the United States. Yet, a critical difference was that these piece rates were introduced without a radical change in management's control over the shopfloor. While, in the United States, machinery was increasingly used to replace labor, this process was rejected in the United Kingdom due to the entrenched position of skilled labor. Though skilled labor in America also objected to Taylorism, the influx of immigrants provided manufacturers with a pool of capable but unskilled workers suited for the new methods of production. In Britain, the craft tradition of skilled workers remained a formidable obstacle to effective management control of the workplace.

These differences are transparent in the history of the British auto industry and the arrival of American firms. Concomitant with, and even prior to, the British experiments with piece-rate wages, American firms began to arrive in the United Kingdom with these new methods of production. Singer opened its first factory in Glasgow in 1867, being reputedly the largest one in the United Kingdom and producing 65,000 machines a year (Hounshell 1984, 95). The success of the Singer Glasgow operations is a clear example of how the growth of American multinationals rode on the back of these changes in the organization of work.

Yet, the most stunning extension of American principles of work to the United Kingdom was the establishment of Ford's factory in Manchester in 1911. Within a few years, both the assembly line innovations and the $5 dollar a day wage were transferred to the Manchester facility. By World War I, Ford was the leading firm in Europe.

The response of the British industry was slow. Prior to World War I, only one firm was reported to have experimented with Taylorism (Lewchuk 1987, 89). Except for the policies initiated by General Motors following its acquisition of Vauxhall, the British-owned competitors to Ford remained committed to essentially craft methods of production. Though the World War I experience led to a growth in the rationalization movement, it also introduced the shop steward as a negotiator between labor and management. Scientific management principles, however, began to diffuse widely throughout the 1920s and 1930s, as seen in the large consultancy practice of an American, Bedeaux, who had devised a way to measure output. Bedeaux consultants were believed to have worked for more than 240 firms in this period (Littler 1982, 106ff). Still, the effectiveness of these applications were limited by the lack of shopfloor control. Direct managerial control over labor was not achieved until the 1970s (Lewchuk 1987; Whipp and Clark 1986). By this time, the British auto industry was reduced to a single national firm, Rover.

**Diffusion to Continental Europe**

As a contrast to the British experience, it is useful to consider briefly the reaction of Germany and France to the new American methods. The relatively rapid response of the continental producers stands in interesting contrast to the British case. By the turn of the century, Germany had risen to rival the United Kingdom and the United States in the international trade in capital goods.

Attempts to introduce Taylorism were not widespread. As in France, Taylor first won renown through his invention of a high speed steel-cutting tool. Time and motion studies were first tried at Krupp in 1910 with a reported 25 percent saving in labor costs (Homburg 1978, 179). Its introduction at Bosch led to a prolonged strike in 1912 and 1913. Though the strike was crushed, the response of German labor was to seek to use the new doctrine of efficiency to bargain for better wages and working conditions (Homburg 1984).

In the postwar period, German industrial leaders expressed considerable interest in Taylorism and, increasingly, in mass production. German firms were decidedly smaller in comparison to those of the United States and the United Kingdom, with the exception of the electronic industry (Kocka and Siegrist 1979). In the 1920s, the burst of acquisitions and consolidations promoted acute interest in mass production and efficient organization.

The literature in Germany was rife with discussions of time/motion studies and aptitude tests (Devinit 1927). But the incentive system of Taylor was not widely adopted, nor did the Bedeaux system penetrate more than twenty-five firms (Homburg 1984). As in the United States, wages were increasingly defined in reference to organizational norms and a growing interest in social welfare benefits. Rather, Taylorist ideas were gradually submerged in the rationalization movement, under government support, that swept Germany in the mid-1920s. This movement not only influenced work organization in industrial sectors (above all in electronics), but also in the office place (Fridenson 1978). Taylorism succeeded in name because of a strong indigenous development in methods of efficient production.

It was in France, however, that the diffusion of Taylorism and mass production was the most pronounced. Although the level of French managerial administration generally lagged behind the British and the German in the late 1800s and early 1900s, France dominated the European auto industry. The intense home competition led to an interest in new machines and methods of production. French firms quickly moved to import, for example, the most advanced capital equipment from the United States in order to improve their productivity (Laux 1976).

Auto companies were also quick to understand the advantages of the American system. Taylorism had been introduced into France through the singular efforts of a prominent engineering academic, Henri Le Chatelier. Le Chatelier saw in Taylorism the practical application of engineering to design more efficient organizations. As Maier (1970) has argued, the strong engineering tradition in France, as well as in Germany, established favorable conditions for the reception of Taylorism.

However, the early experiments with Taylorism were failures. In 1912, Berliet hired time-study experts in his plants without considering to persuade workers of the benefits (Moutet 1975). The recommended cuts in piecework led to a strike. Renault, who had already introduced some aspects of Taylorism in his plants in 1908, visited Taylor and Ford in the United States in 1911. In 1912, time-study was extended to several Renault plants. Following the publication of unfavorable American union reports, a strike broke out, though as with Bosch it was crushed.
It was only during World War I that Taylorism was recognized to achieve productivity gains in a handful of munitions plants (Moutet 1975). Following the war, the competitive effect of Ford's production out of its Manchester plant incited French auto companies to adopt mass production systems. Citroën adopted the assembly line in 1919, Berliet, in 1920, and Renault and Peugeot, two and three years later, respectively. The only major German producer to adopt mass production was Opel in 1924, shortly before its acquisition by General Motors (Fridenson, 1978).

But France also strongly stressed the indigenous roots of Taylorism. The rationalization movement, which also gained prominence in France during the 1920s, emphasized the work of French authors, especially Fayol regarding the organization of the firm. Due to the support of the state and unions in the postwar period, French employers entered the 1920s in a strong position following the successful breaking of a number of major strikes. Time/motion studies expanded rapidly; only in the United Kingdom was the Bedaux system more widely spread than in France. As in Germany, Taylorism became part of the emergence of an engineering ideology that reinforced the penetration of managerial control over the shopfloor.

Discussion

In his study of the diffusion of scientific management in Europe, Devinat (1927) noted that Taylorism had spread widely throughout the continent, including the Soviet Union. Its greatest success, however, lay in those countries marked by similar indigenous efforts. In each country, its diffusion was strongly influenced by the existing institutional structure.

These institutional influences were of two kinds. First, the ability of management to control the shopfloor strongly modulated the introduction of new Taylorist ideas. Yet, the experiences of the United Kingdom, Germany, and France suggest that the most conductive environment was one where management had neither dominant nor weak control. In the United Kingdom, the failure by management to gain control over the shopfloor, as had occurred in the United States in the earlier part of the century, rendered it difficult to introduce new techniques of production, as well as new capital equipment (Lewchuk 1987). In France, the power of the employers after the breaking of the postwar strikes reduced the necessity to build further on the early initiatives of the rationalization movement; the initial interest in Taylorism floundered in the postwar period (Moutet 1975).

In Germany, the growing cooperation of labor and employers led to a gradual transformation of the German economy. This transformation did not occur under the label of Taylorism. Indeed, the rationalization movement in Germany self-consciously stressed the German roots of the programs to standardize production, consolidate industry into fewer firms, and to diffuse best practices in the economy. However, the conflict between the tendency of rationalization to lead to mass production and the tradition of craft workers led to a tension in the organization of work in Germany that has persisted to current times.

The second institutional factor was the support of political and ideological institutions. The diffusion of new methods of production was strongly supported by the German government, especially through its contribution to numerous trade associations and technical centers. Furthermore, the emphasis on productivity was reinforced by the technical training of German workers and managers. In France and in the United Kingdom, the educational institutions worked to separate the shopfloor from management. The debate over Taylorism was, as Maier (1970) argued, indeed an ideological struggle to extend managerial control over the workplace.

An interesting possibility, to which we can only allude here, is that the failure of the British efforts resulted from the lack of an engineering managerial class that could legitimately make this argument. In Chandler's (1990) words, the United Kingdom developed an economy characterized by "family capitalism." Notwithstanding whether this claim of the greater importance of family control in Britain will bear up against comparative evidence, what is clear is that British management did not develop the administrative control over the shopfloor to introduce quickly new methods of organizing the factory and to build the appropriate incentives.

The Multidivisional Structure

The multidivisional structure was one of the most significant management innovations of the twentieth century, and was crucial in the growth of industrial firms beyond the limits of single product lines (Chandler 1962; Flistein 1990). Originating in the United States in the 1920s, it was a direct outgrowth of the emergence of large American firms, competing on mass production and large volume distribution. It coincided with the "marketing revolution" of the 1920s and led to a reordering of both the industrial structure of the United States and the power structure within many firms. The functional structure and single industry focus was gradually replaced in the top American corporations by a new emphasis on growth and sales through diversification and the allocation of functional authority to product divisions (Chandler 1962; Williamson 1975; Flistein 1990).

To illustrate the development of the multidivisional structure, we draw primarily on the well known history of Du Pont discussed by Chandler (1962, ch. 2). The modern Du Pont was created when Pierre and Coleman Du Pont consolidated the explosives industry into a single, tightly controlled and functionally organized firm in 1902. With a monopoly in military explosives, Du Pont underwent tremendous growth, growing by 54 times during the First World War. However, with the end of the war, Du Pont faced an urgent need to find a use for its vastly expanded productive capacity. The solution was to enter the paint, dyestuffs, and artificial leather industries, partly because the dominant firms in these industries had been German and were thus removed from competition by the war, but largely because these industries could make use of Du Pont's basic raw material, nitrocellulose.

Du Pont's new businesses required a new set of capabilities. Its traditional product (high explosives) was sold by tonnage but many of its new businesses required merchandising. Faced with fierce competition in these new markets, Du Pont soon was experiencing serious losses in its new product lines (although the explosives operations continued to be profitable). It took several years and several studies that
all came back proposing the radical idea of the multidivisional structure, and a deep recession before structural change actually took place.

This radical innovation involved splitting the company into product divisions, each with relative autonomy in day-to-day operations. A new general office was created to hold the individual divisions accountable, ensuring that they were managed efficiently. The general office also would focus on the broader strategic issues of the enterprise as a whole. While this structure assured accountability and control, it freed up the time and attention of upper management for strategic issues at the corporate level (Chandler 1962; Williamson 1975). Du Pont was soon again profitable and growing.

Meanwhile, at General Motors, Alfred Sloan independently created a similar structure to gain control over the far-flung empire William Durant had built. Not long after implementing the new structure, General Motors gained the lead over Ford in sales (Chandler 1962). Perhaps because of its central role in the turnaround efforts of such pioneering companies as Du Pont and General Motors, the new organizational structure was widely believed to contribute to the success of these corporations and, particularly after World War II, the form was widely adopted by other large American corporations.

It is curious that Pierre Du Pont was involved in the development of the new organizational structure at both Du Pont and GM, and yet he seemed to make no connection between the structural problems of the two companies. While this might seem strange, we should note that Du Pont was struggling with a diverse but tightly controlled and rationalized functional organization, while Alfred Sloan at GM was struggling with a far-flung holding company. It is also an indication that the multidivisional structure was not yet recognized as an organizing principle, much as in the case of the slow recognition of the principles of standardization (Chandler 1962, 114–115).

The success of the new structure in addressing the management problems of the time was striking. Throughout the 1920s and 1930s, firms with the new structure grew faster and were more profitable than firms without it (Flistein 1990, chaps. 4 and 5). The combination of factors leading to the origin of the new organizational structure—complexity, customer diversity, and competition—is reflected in the industry distribution of the multidivisional structure in 1960. In some industries, notably mining and metals, firms tended to grow and diversify but stuck to products that were sold largely to their traditional customers. Few of these firms adopted the new structure. At the other extreme were the electrical, electronics, and power machinery industries, where technological complexity led to diversification into products that served diverse customers. In these industries, 90 percent of firms adopted the new structure (Chandler 1962).

The diffusion of the multidivisional structure in a sample of large American firms is well illustrated in Figures 10.1 and 10.2. Figure 10.1 shows the proportion of adopting firms by industry in 1960, 1970, and 1980. Figure 10.2 shows the diffusion of the multidivisional structure in 150 large American firms.

The hypothesized performance advantages driving the diffusion of the multidivisional structure are best articulated by Williamson’s (1975) “M-Form Hypothesis.” Williamson argued that as firms grew more complex they suffered from
cumulative control loss including the confounding of day-to-day and strategic decisions resulting in poor performance. He hypothesized that the multivisional structure more nearly approximates neoclassical profit maximization than does the functional structure for large, complex firms. Empirical work has largely confirmed this claim (see Armour and Teece 1978; Teece 1981; Hill 1988).

**Diffusion to the United Kingdom**

The forces driving the divisionalization of European firms during the postwar years were the same as for American firms: administrative complexity caused by diversity and inefficiency in the face of competition. An important difference, however, was that this competition was frequently from the United States, which was perceived as a leader in the adoption of new management practices such as the multivisional structure. These factors of growing administrative complexity and the demonstration effect of the American adoption prompted the rapid diffusion of the multivisional structure by European firms, especially in the period 1960–1970 (Channon 1973; Dyas and Thanheiser 1976; Pavan 1972).

One of the major contrasts between Europe and the United States is the later adoption of the multivisional structure in Europe. In the three major European industrial countries—the United Kingdom, France, and West Germany—there were few (if any) firms adopting the multivisional structure prior to 1950. This lag is widely attributed to the less competitive environments in these countries in the inter-war years (Channon 1973; Franko 1976). In the British case, joint stock companies were relatively less common than in the United States. In 1914, 80 percent of U.K. companies were still private family companies and by 1950 a remarkable 50 percent of the top British firms were still family dominated (Channon 1973), lending support to Chandler’s (1990) description of the United Kingdom as being a case of family capitalism. The prevalence of privately held firms, protected markets and the restrictive practices and cartels that flourished in Britain during the 1930s (there were no significant antitrust laws in Britain until 1948) led to a less competitive environment in British industry than the United States.

The changes in the United Kingdom are well documented by the data collected by Channon (1973). For 1950, he found only twelve of ninety-two (13 percent) firms in his sample had adopted the multivisional structure and of these, eight were foreign owned or controlled. The four domestic multivisional firms represented only 5 percent of the domestic firms in his sample. However, throughout the 1950s and 1960s British firms rapidly adopted the new structure so that by 1970, 72 percent of all firms in Channon’s sample were multivisional.

**The Spread to Continental Europe**

The history of the diffusion of the multivisional structure Germany and France is similar to that of the United Kingdom’s. In these countries, companies traditionally enjoyed relatively protected environments. This protection often had government approval (if only tacitly) and was embedded in the financial and banking
structure. Companies were tightly controlled, often by single families, or linked through financial arrangements, and publicly traded companies were rare.

Consequently, the widespread adoption of the multidivisional structure in these countries did not get into full swing until the 1960s. The spread of the multidivisional structure in these countries was primarily due to the development of market, technological, and legal environments similar to those that prevailed earlier in the United States (Alford 1976; Chandler and Daems 1980). Principal among these developments were the rapid growth in gross national product and the rise of mass consumer markets, the adoption of large-scale, capital-intensive production technology, and significantly stronger antitrust laws. The emergence of a more competitive environment forced many of the holding companies to rationalize and consolidate their operating units.

The emergence of greater competition also explains the earlier adoption by British firms because the United Kingdom enacted antitrust laws earlier than the other European countries. The United Kingdom first enacted tough antitrust laws in 1948, while Germany, which had affirmed the legality of cartels in 1897 did not pass any antitrust legislation until 1957, and then only under pressure from the United States and the other Allies (Channnon 1973; Dyas and Thanheiser 1976).

A second factor leading to increased competition in France and Germany was the entry into domestic markets by American multinational firms in the postwar years and, after the Treaty of Rome, the increasing international competition among European firms. The American firms, with their modern technologies and management, were especially competitive and an important perceived threat to both European industry and political independence. The success of the American firms was overwhelming. By 1965 10 percent of the United Kingdom’s industrial output was produced by American firms (Channnon 1973). Many European firms explicitly imitated their successful American competitors. The Channnon study found that twenty-two of thirty-two British companies employing a consultant on their structural change used a single American firm, McKinsey & Company (Channnon 1973). McKinsey was also reported to be involved in more than a dozen German restructuring, which would roughly account for 25 percent of German firms adopting the multidivisional structure (Dyas and Thanheiser 1976). Some of the widespread imitation of American firms was driven by European firms’ attempts to compete in the United States (Franko 1976).

The evidence from these studies is that the diffusion of the multidivisional structure among European firms was affected in important ways by the history, traditions, and structure of business in each of the countries. In the United Kingdom, these factors lead to a relatively rapid and widespread diffusion of the new form. In Germany and France these factors inhibited the diffusion.10

Comparison of Diffusion

Due to the important studies on the diffusion of the multidivisional structure in the United States and Europe, it is possible to compare roughly the rate of diffusion among several countries.11 We should caution the reader that these comparisons are based only on the rate of adoption by those firms that implemented multidivisional

Figure 10.3 Multidivisional structure: European diffusion. Source: Based on data from Franko (1976) and additional research by the authors.
products, or instruments. The few that are in these industries have a lower incidence of multidivisional structure than the other industries, which is in line with the American experience.

**Adaptation and Graft**

Most analyses of the advantages of the multidivisional structure focus on the role of the central office and its relations with the divisions. However, these relations are traditionally quite different in the European firms form those in the United States. In Germany, where the collegial system of management is prevalent, there are important differences from the American case. Among these differences is a lack of monetary incentive schemes tied to divisional performance. The spread of new organizational charts across Europe in the 1960s was not accompanied necessarily by the spread of American style internal control and accounting systems.

In explaining the adoption of the external form of the multidivisional structure without much of the important internal substance, it is important to recall the conditions of the post–World War II debate in Europe. The success of the United States, and the relative weakness of Europe, led to a plethora of academic and government studies investigating the European problem. A large number of commissions and studies in the United Kingdom attacked domestic industry for their poor managerial capabilities compared to U.S. subsidiaries operating in Britain.

In response to these criticisms, the rapid diffusion of the multidivisional structure among European firms in the late 1960s evolved in a heated politicized environment stressing the superiority of the American methods. The prestige attached to adopting an Americanized structure led to the “on-paper” adoption of a multidivisional structure that is not comparable to the typical American divisional firm. The internal operations of the divisionalized firm are as crucial to its efficiency as is its surface structure. In the American firms, there tended to be a clear distinction between the strategic or entrepreneurial responsibilities and the operating responsibilities. A substantial general office that appraises, controls, and plans are as important as is the actual separation of divisions with conflicting operational needs. This separation is frequently lacking in the European adaptation.

In the United Kingdom, this paper adoption was particularly easy. Many British firms had originated in the merger of smaller family owned and controlled firms. Most of these firms never rationalized or consolidated their operations. Mergers took place through the exchange of shares, and, perhaps, partly because of tradition and partly because of a less liquid stock market, control of these firms remained fractured. Each family continued to manage what was formerly its own firm, and the whole enterprise was managed usually in a collegial manner (Channon 1973).

Most of these newly merged firms adopted a holding corporate structure (Channon 1973; Hannah 1983). Consequently, it was perhaps particularly easy for these firms to superimpose the look of a multidivisional structure on their existing structure. However, little changed internally. This practice was widespread throughout Europe, and only one third of the European firms adopting a divisionalized structure between 1960 and 1970 even set up a general office (Franko 1976).

The missing characteristics of the multidivisional structure extend to more than
just the nature of the general office. The use of collegial management in many of the U.K. and German firms has a distinctly nondivisional characteristic. In the collegial system, the same individuals that are division managers make up an executive committee, and there is only a small general office. The resulting management system does not effectively separate corporate issues from day-to-day operating issues. Given these differences in the American and European patterns of divisionalization, it is not surprising that the findings on the profitability of the adoption of the multidivisional structure have been different in the U.K. and European case than the American case. While the multidivisional structure has been found to contribute to profitability in American firms, the findings previously discussed are inconclusive for non-American firms.¹₅

To a large extent, then, the multidivisional structure was not so much adapted to European conditions as it was simply grafted onto the presentation of the existing organization. Channon (1973, 213–14) writes in conclusion:

British companies thus widely adopted the multidivisional structure during the past 20 years as the organizational form best suited to manage the diversified enterprise. However, the observations indicated that while companies accepted the need to divide their organizations into logical, multifunctional units, many of the internal characteristics of the corporations adopting multidivisional structure reflected prior structural forms. In particular, there was little evidence of change in the reward system, especially as a mechanism to apply pressure and internal competition for divisional performance.

A Focus on the United Kingdom

Why did U.K. firms adopt the multidivisional structure so much more rapidly and extensively than they adopted Taylorism? What explains the paper adoption of the new corporate structure? The answer to both these questions, as suggested earlier, lies in the peculiar conditions of labor relations and business in Britain.

The roots of these conditions lie in the developments marking the early industrial history of labor relations in the United Kingdom. At the time of the first industrial revolution, the separation of ownership and control took place very early in some industries. Most important, this separation took place before effective means of administration were developed and widespread. In manufacturing, subcontracting was the dominant method of organizing work. Under this system—similar to the internal contracting method of early American industry—the owner provided the machinery and factory, but the actual production was under the control of subcontractors, who were free to hire their own help and arrange production as they wished (Gospel 1992). This system of labor organization invariably had problems of control, which were not abated by the prevailing methods of accounting. It was not unusual that accounts were completed only several years after transactions (Mee 1975). In contrast, modern methods of cost accounting began to diffuse widely in the United States by the close of the 1800s.¹⁶

But this difference in accounting practices is most likely linked to a more fundamental contrast between the United States and the United Kingdom, namely the

British deadlock to resolve the “labor problem”—which, after all, had been experienced in all industrial countries at the turn of the century—by exercising more authority over the traditional craft organization. While shopfloor control in Britain and in the United States developed through the same stages of personal, technical, and administrative authority, the United Kingdom failed to extend this control effectively to the shopfloor (Fox 1985). Even as late as 1968, a government report noted that the system of national collective agreements to establish pay, but with local bargaining to establish piece rates and incentives, led to a stalemate at the shopfloor. Many companies, the report concluded, had “no effective personnel policy to control methods of negotiation and pay structures, and perhaps no conception of one” (Royal Commission on Trade Unions and Employers Associations 1965–1968, Report HMSO; cited in Channon [1973, 41–42]).

That the slow adoption of Taylorist and mass production methods is not an expression of a general failure of management to recognize the nature of the organizational challenge from the United States is evident in the diffusion of the multidivisional structure in the United Kingdom. The nature of British organizations made it extraordinarily easy to nominally adopt the multidivisional structure. Many of the large British firms were formed by mergers, sometimes involving scores of firms, and there was no widespread rationalization (Hannah 1983). Most of these firms adopted a holding structure with the constituent parts continuing to be managed independently. For example, after their merger in 1951 to form British Motor Holdings, Austin and Morris retained a high degree of competitive independence. Further mergers and attempts at rationalization in 1968–72 were also largely failures (Clark 1987, 306).

The decentralized holding-company structures of many large firms made the nominal adoption of the multidivisional structure a simple matter. However, the true adoption of the multidivisional structure appears to have met the same difficulties as the adoption of Taylorism. This paper discusses left British firms with the form of modern management but not the substance.

It is a reasonable speculation that an additional factor accounting for the extremely rapid diffusion of the multidivisional structure in the United Kingdom was its value as a quick and easy response to the widespread criticism of British business in the postwar period. It allowed firms to easily solve their internal political problems by, ironically, reinforcing and legitimizing the existing decentralized structures. Thus, both by its appeal as a symbolic adoption of the perceived “best practices” of the United States and by the authority of British management to impose at least a semblance of structural change on the corporate organization, the multidivisional structure diffused in the United Kingdom at a rate comparable to that of other countries.

Conclusions

This history presents two sobering considerations, the first concerning the importance of national institutions on adoption, the second the simple difficulty of knowing what to adopt. The slowness of the diffusion of these practices within and among
countries underscores the difficulty of altering institutionalized patterns of work. This difficulty is not only hampered by the resistance of traditional groupings, but also by the uncertainty about the potential modes by which work can be organized. It is not surprising, then, that the adoption of these new practices should therefore be grafted onto and transformed by the existing institutional structures.

The history of the adoption of the multidivisional structure points to the wide belief in the superiority of American practices in the postwar period. On the back of these practices, American multinational corporations and, later, American consulting companies extended their operations internationally. The emergence of the United States as an industrial power at the turn of the century and its extraordinary dominance after the Second World War led to the emulation of its principles of work.

Yet, the social and institutional context modulated the strict emulation of these organizational practices. Though British managers were unable to successfully use the American example to gain control over the workplace as was done in the United States, they fared no worse than the American and continental European firms in their capabilities to nominally adopt the multidivisional structure. However, this emulation was imperfect and constrained by the social context in which U.K. firms operated.

In this regard, a second consideration is the simple difficulty in identifying new practices, even when the innovating firm is a competitor of the same country. These difficulties—of detecting practices, understanding them and their contribution to success, and transferring them—increase when we cross international borders (see Kogut 1991 for discussion). This consideration is more troubling, for it casts doubts on the conventional wisdom found not only in practice, but also in academic discussions. The recognition that firms from other countries are competing with superior productivity does not, in and of itself, indicate the source of this productivity. There is, therefore, the problem of what March and Olsen (1976) call “superstitious learning,” that is, a false attribution of causality is made. That the adoption of the multidivisional structure is an example of a solution searching for a problem cannot, on the basis of the current evidence, be ruled out.

These issues are, obviously, not only of historical interest, because the current period is characterized by the process of identifying and adopting a set of organizing practices with their origin in Japan. In part, the adoption of such practices as just-in-time, manning of multiple machinery, and outsourcing of critical components stumble on differences in the institutional conditions of countries. As Whittaker (Chapter 7) shows, the experiences of Japanese and U.K. firms in adopting new product technologies of flexible and automated production are strongly conditioned by the training of workers and the prevailing system by which labor is organized, remunerated, and promoted.

Leaving aside the social capability and feasibility of adopting new practices, an especially troubling realization is how far short our understanding of the sources of the Japanese advantage falls in sorting fact from belief. Certainly, the many studies on Japan over the past decade, as reviewed by Lincoln in Chapter 3, have advanced the perspective that the organization of work at the shopfloor, across functions, and across the chain of suppliers is pivotal.

The issue in question is not, then, whether practices can be transferred across borders. The historical record of the diffusion of American practices, as well as that of the practices of other countries, shows that organizing principles can be adopted, though the varying extent of adaptation can be considerable. Rather, the remarkable observation is that after so much study, the identity of the Japanese organizing principles responsible for the unquestioned productivity and quality advantages is still in dispute.

It is in the recognition of the difficulty of identifying these traits that the slow speed of the diffusion of organizing principles across borders can be understood. Of course, it is also this very difficulty that interacts with the social conditions and that allows for the shaping of interpretation to accord with the alignment of the prevailing social norms and distribution of power. What is transferred and how it is adapted is, in part, an outcome of the demonstration of economic advantage by the forms of leading countries; but it also a reflection of how these methods are interpreted in the context of the existing relations of class and group in a society.

Notes

We would like to thank Jim Lincoln for his comments on the conference draft.

1. These observations were forcefully argued by Habakkuk (1962).
2. Both of these books came out after the completion of the paper presented at the conference; their content confirms much of what we had written, and we would like to acknowledge their precedence even if we have failed to fully incorporate their findings.
3. Hounshell, however, argues that this claim was exaggerated (1984, 105ff).
4. See Ferguson (1979) for the early history; Nelson (1980) for their technological stagnation.
5. The clearest indication of the spreading of American organizing principles was in Czechoslovakia, where the auto producer Skoda named its new plant the "America."
6. See Brady (1933) for a detailed account of the rationalization movement.
7. This importance of these institutions in contemporary Germany is outlined in Chapter 1 by Herrigel (this volume).
8. Flielt (1990) discusses at length this reordering of industries and firms. In the 1920s and 1930s, firms adopting the multidivisional structure grew faster and surpassed these firms not adopting the structure. See especially his chapters 4 and 8.
9. A number of studies trace the diffusion of the multidivisional form through American industry. Among the most complete of these is Bhargava (1973) and Rumelt (1974).
10. In the diffusion rate of the multidivisional structure in these European countries are consistent with the empirical studies of the relative efficiency of the multidivisional structure in these countries. For the United Kingdom, Steer and Cable (1978), Thompson (1981), and Hilt (1988) find support for the superior performance of the multidivisional structure. However, Cable and Dirrheimer (1983) find a negative relationship between the MD form and profit in Germany. (There has been no French study).
11. We would like to thank Lawrence Franko for kindly sharing his data on the European diffusion with us. For a description of the data, see Franko (1976).
12. For continuity with the discussion on Taylorism, we have not included the data on Italy, where the multidivisional structure had only disseminated to 26 percent of the sample of the largest corporations. See also Pavan (1972) for a discussion.
13. For a discussion of the German system of management see Dyas and Thanheiser (1976, 106–108); for a discussion of weak incentives in British corporations, see Channon (1973, 210ff).

14. For a representative study, see Dunning (1958) and his chapter in this book (Chap. 11).

15. See our earlier comments, and Mahajan, Sharma, and Bettis (1988, 1188–1201) for an overall review.

16. Whereas it might be argued that modern accounting principles were developed in the United Kingdom, the evidence appears to suggest that their diffusion was far greater in the United States. For a critical appraisal of the United Kingdom, see Pollard (1965); for a more positive view, see Edwards and Newell (1991). The developments in the United States are sketched in Chandler (1977).

17. These conclusions are similar to those of Westney’s regarding the adoption of Western practices in Japan (Westney 1987).

18. The study by Westney (1987) is one of the clearest of the works that should have put to rest the naive question about whether practices may be transported.

References


