International Business Networks: Theory and History

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Introduction

One of the key features in the evolution of international business during the 20th century has been an increasing tendency for such economic activity to be co-ordinated directly through the activities of multinational firms rather than by means of market exchange. The identification of transactions costs as a barrier to the effective use of the price mechanism for co-ordinating international business activity has provided the economic rationale to explain this process of internalisation, both within firms generally and within multinational firms in particular.

The simple observation that a market exchange process frequently generates significant transactions costs for the participants is not of itself, however, decisive in determining the form of alternative arrangement that would provide the most effective substitute to the price mechanism. Historians are only too aware that, in practice, a wide variety of institutional arrangements have been adopted by different societies in order to organise their economic activities. Recently, there has been growing recognition that market transactions, on the one hand, and internalisation within the firm, on the other, represent not a simple dichotomy of economic alternatives, but merely two from among a number of possible economic arrangements that may serve as co-ordinating mechanisms. For example, during the 1980s international business activity has witnessed the rapid growth of complex corporate alliances, leading often to the emergence of "corporate galaxies in which a large TNC is linked to a cluster of smaller TNCs and national firms via joint ventures, sub-contracts and marketing agreements" [10, p.496]. Commenting on this new orientation of multinational enterprises, Dunning has argued that, "the multinational enterprise is now increasingly assuming the role of an orchestrator of production and transactions within a cluster, or network, of cross-border internal and external relationships which may or may not

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involve equity investment, but which are intended to serve its global interests" [7, p.327]. The emergence of such clusters or networks of independent firms has led Dunning to call for a reappraisal of thinking about the nature, functions and boundaries of firms and markets, and has, he suggests, cast doubt on the usefulness of some of the existing classifications of economic activity [7, p.328].

In fact, historical evidence on the nature of business enterprise indicates that the simple market/firm delineation has never provided a complete explanation for the varied forms of economic co-ordination mechanisms that have existed in practice. The discovery of corporate inter-firm networks in the 1980s finds its echo in the variety of forms of international business arrangements that existed before the First World War, some of which are outlined below. The massive international political dislocations wrought by two world wars, themselves punctuated by an associated slump in world trade of unparalleled depth, together with the collapse of the political structures of colonialism, served to shatter many of the economic international linkages that were in place around the turn of the 20th century. Under such circumstances it is hardly surprising to discover that the post-Bretton Woods period, which witnessed the rebuilding of international economic networks, saw a great deal of this reconstruction centre around the dominant institution of the dominant economy of this era - the American corporation.

Influenced by the work of Alfred Chandler [2,3], business historians have tended to assert that the multi-unit business enterprise, with a professional managerial hierarchy, which emerged in the United States during the second half of the 19th century, represented an evolutionary advance in institutional form compared with those existing in other industrialising societies at the time. Certainly, the central role that such enterprises played in promoting the international ascendency of the United States across a range of industries up to the end of the 1960s provides *prima facie* evidence that these institutions have, in recent history, represented the height of economic efficiency. In the realm of international business especially, the American multinational corporation has become synonymous with international economic prowess. As a result of its success, the post-war period saw the emergence, in all other industrialised countries to a greater or lesser degree, of institutions in the image of the American modern business enterprise. The establishment of a global network of such firms, spanning a range of industries, appears now to have created a new international business framework from out of which are developing more complex structures of transnational economic organisation.

It is the purpose of the present paper to develop an analytical framework within which such a richer variety of international economic co-ordinating mechanisms can be appraised. These arrangements include, as well as conventional market exchange and traditional multinational firms, a number of international economic networks based upon social groupings. Underpinning this new point of departure is an acknowledgement of the economic function of trust. The next section of the paper outlines the general framework, together with the economic reasoning that supports it, and the following two sections illustrate its historical applicability by providing some examples of international economic arrangements that cannot be satisfactorily explained in terms of the conventional dichotomy between firm and market. These examples draw upon both family-based and non-family-based international economic networks. In concluding, the paper points towards the need for further research on the historical relation between networks and firms under changing international economic, political and social conditions.

Systems of Economic Co-ordination

Conventional economic theory assumes that individuals are selfish. Institutions such as profit-maximising firms behave selfishly too. In the absence of restraints, selfish agents have a strong incentive to cheat one another. A trader may not pay his partner, for example, even though when both parties do this it is self-defeating. This is the well-known Prisoners' Dilemma. The Prisoners' Dilemma can be solved using legally binding contracts, but such contracts are costly to enforce. When legal sanctions are inadequate people cannot normally be trusted. This is how transactions costs arise - they measure the losses generated by lack of trust. Most economic analysis of transactions costs implicitly assumes a low-trust environment.

Repeated trade can reduce transactions costs by increasing trust - but only up to a point. When a transaction is embedded in a longer sequence, cheating on one transaction may prejudice later ones, so that provided there is a prospect of further trade, and people are not too impatient for rewards, co-operation may emerge. Enlightened self-interest generates a high-trust atmosphere. These special conditions are most likely to apply when economic agents belong to small groups with stable membership, and operate closely together, since interactions between them will be particularly frequent in this case.

Relying on this mechanism is risky, though. Circumstances change: groups may split up as their members move on, and this undermines trust and prevents new arrangements being made. The flexibility of the system is impaired, and adjustment is delayed as a result.

Fortunately, repeated trade is not the only basis for co-operation. Altruism may be effective too. In conventional economics altruism is typically treated as an aberration from the selfish norm. An exception is only made for the family unit. It is just a short step to suggesting that altruism may be effective in the firm, though. For a firm - particularly a small firm - is a social group; indeed, many firms are actually based on the family group. It is a somewhat greater step to say that altruism could be present in ordinary markets too. But this is perfectly plausible, given that altruism is often experienced towards people who are met face-to-face. Touching people is important too - is it just coincidence that a handshake is the symbolic gesture that seals a bargain? In principle, altruism is present in both firms and markets. If it is stronger in firms than in markets, then this is another reason for internalisation - the firm is not only a unified ownership unit, but a more integrated social unit too.

If altruism is responsive then it can be manipulated. Once the key that unlocks the altruistic response is understood, people can elicit altruistic responses from each other. Reciprocity is crucial here. A gift, for example, commonly unlocks a desire to respond. This is an example of interdependent preferences: each person desires to complement certain actions performed by others with corresponding actions of their own.

Strategic manipulation of preferences can be used to engineer trust. Some people understand this better than others. Leaders may emerge who specialise in eliciting responses, such as greater effort or loyalty, through symbolic sacrifices to a cause which then becomes the mission of the group. Leadership of this kind substitutes for law. Within the firm it substitutes for the enforcement of the contract of employment. It reduces agency costs by eliciting spontaneous effort and integrity from the employee. Within a market it substitutes for the legal enforcement of business deals. It reduces transactions costs by discouraging traders from cheating on fellow members of their group. In both cases the parties trust each other whether or not formal sanctions are applied to cheats. Cheating does not occur because, in failing to reciprocate co-operation, cheats inflict an emotional penalty of guilt or shame upon themselves. A system of values which sustains spontaneous co-operation without recourse to legal sanctions is identified here as a high trust culture.

It was noted above that conventional analysis of firms and markets is predicated on a low-trust culture. In the 3x2 matrix shown in Figure 1, these alternative forms of economic co-ordination proposed by Coase [5] are captured by the top left and bottom left cells. Given the conventional neoclassical assumption of low trust between transacting agents, the existence of high transactions costs will lead to internalisation and the re-allocation of property rights accordingly. The traditional hierarchical firm solves the problem of transactions cost through centralising decision-making and using directives (quantity setting) to allocate resources. However, a principal-agent type problem is now created whereby monitoring costs are incurred by the owner of the firm's resources in ensuring that directives are carried out appropriately. A compromise solution to the problem of transactions costs in a low trust environment is illustrated by the middle left cell of the matrix in Figure 1. Market transactions are internalised within the boundaries of the firm, but price signals are still utilised in order to decentralise some aspects of decision-making. This is the M-form organisation that most readily corresponds to Chandler's multi-unit business enterprise. It has the advantage over the traditional hierarchical firm of providing an internal system of accounting prices which ease the problem of monitoring the performance of decentralised decision makers and allow greater flexibility for the firm to expand as necessary. However, autonomy in decision-making under such circumstances remains strictly limited and, with growth, problems of X-inefficiency associated with large bureaucracies become apparent.

Figure 1

		TRUST	
		Low	High
CONTRACTUAL ECONOMIC PRINCIPLE	External: Arms-length	Ordinary Market	Inter-firm Network
	Internal (1): Internal prices and decentralised	M-form Firm	Intra-firm Network
	Internal (2): Quantity setting and centralised	Traditional Hierarchy: U-form	Paternalistic Firm

In contrast to the low trust scenario, the possible forms of arrangement that can be supported through a high trust network are illustrated in the right-hand column of the matrix in Figure 1. A variety of established social groupings may provide the basis for a successful economic network [1]. The paternalistic firm (bottom right cell), containing as it does an inherent hierarchy, represents the basic building block for many of the traditional hierarchical firms that developed from family firms. As a rule, such a network would be too limited in extent to support more than a basic, small-scale decision-making enterprise. In much the same way that the U-form firm needed to evolve into the more flexible M-form firm, to accommodate growth in its decision-making apparatus, so the paternalistic firm needs to develop a broader network in order to decentralise authority. An intra-firm network (middle right cell) may utilise an extended family group or some other social grouping that promotes trust among members. For example, when the control of a paternalistic family business devolves to the second generation, an intra-firm network of brothers may arise. Similarly partnerships, between friends and colleagues for example, represent a common example of an intra-firm network based upon mutual trust and respect.

Perhaps the most interesting and potentially valuable of the high trust organisations, however, occurs when membership of a common social grouping allows a network to develop which is not formalised through the creation of an economic institution. The inter-firm network (illustrated in the top right cell of Figure 1) allows the problem of market transactions costs to be overcome through the ability of each member to have confidence in the sincerity of other members to perform in accordance with a pre-arranged agreement [8]. To the extent that this type of network may retain its integrity as it expands, it offers the possibility that quite complex economic co-ordination could occur with relatively little formal internalisation of economic decision-making.

Family Networks in International Business

Geographical dispersion of the members of a group allow networks to provide the basis for the development of both regional and international business organisations. The internationally dispersed family network is perhaps the most common alternative economic network to that of the international firm. Families, naturally containing an inherent hierarchical structure, frequently emerged as informal "firms" in many cultures, becoming formalised into companies only once the appropriate legislative structure had been created. The authority structure of families therefore provided the basis for proto-firms and their activities would be encompassed within the bottom right cell of Figure 1. The extended family, however, is bound together less by authority than by mutual trust based upon group self-interest. As noted above, these extended family groupings are captured by the middle right cell of Figure 1 and provide the basis for a far wider geographical network whenever factors such as colonial government service, religious and ethnic persecution, political dissidence and poverty brought about their international dispersion.

An example of an international organisation deriving its origins from an extended family in Victorian Britain can be found in the history of the Glaxo multinational company. The Glaxo group can be traced to the merchanting firm of Joseph Nathan, a Londoner who settled in Wellington, New Zealand in 1857. His initial business interests lay in trade; importing commodities such as groceries and ironmongery from England. In the 1890s, however, he began production, exporting his own frozen meat and butter to England. During the first decade of the 20th century, the company recognised the opportunity to produce powdered skimmed milk, using the surplus skimmed milk from their New Zealand creameries and butter factory. After two unsuccessful attempts the company developed a dried milk powder for infants and invalids, using the brand name Glaxo, which proved to be a mainstay of the company during its formative years. The international organisation of the company relied heavily upon the dispersal of Joseph Nathan's large family of sons across the various branches. As Davenport-Hines has pointed out, "The Nathan Brothers...preferred to do their international trading through 'kissing kin', and had a bewildering network of cousins and connections by marriage whom they appointed to loosely-defined agencies carrying generous commissions or expenses" [6, pp.141-2]. The international growth of the business was dominated by the family character and by decisions reached on a family basis.

This atmosphere of mutual trust seems to have played an important role in promoting the international success of the Glaxo business before the Second World War. Problems seem to have arisen mainly when the business environment dictated that the family network needed to be supplemented by more arms-length commercial relations. Thus when, in 1912, the Australian government imposed a tariff on bulk imports of Glaxo powder from New Zealand the company decided that it needed to set up local manufacturing capacity. Whereas the distribution of imported milk powder had been handled by a grandson of Joseph Nathan, the New Zealand directors now appointed an Australian firm, Bacchus Marsh, to manufacture it under license. However, "They gave a manufacturing agreement to Bacchus Marsh for a trial period of only about two years' duration, and by this and other actions made clear to their licensee that they distrusted him" [6, p. 145]. This lack of trust encouraged Bacchus Marsh to develop their own version of the powder, Lactogen, which they launched in 1914 when the license agreement expired. This quickly became Glaxo's main rival in Australia, and was later bought by Nestlé who developed it internationally with disastrous consequences for the Nathans. It would appear from this episode, therefore, that the Nathan's extended family network contained sufficient distributed expertise to provide a trustworthy distribution network, but lacked the ability to supervise local manufacturing capability. When outside assistance was brought in to obtain this expertise, the breakdown of trust created a situation for which the New Zealand-based directors were inadequately prepared.

The Glaxo example seems to indicate that extended family networks may provide a cost efficient method of developing an international business organisation, but that the relative inflexibility of the traditional Anglo-Saxon family network placed a fetter on the extent of business expansion if local personnel were either not capable or not sufficiently experienced to undertake new tasks dictated by the need to cope with change. For Glaxo, continued expansion of production required the introduction of non-family expertise into the company's management. Once this occurred, monitoring costs that could have been avoided, or at least kept to a minimum, now demanded greater emphasis and hence drew upon more resources.

The limitations of the family networks originating from Britain are not always evident in similar networks developing within other cultures. The international business networks developed by the Overseas Chinese throughout South East Asia from the sixteenth century onwards provide an alternative example of a family-based structure. The internal structure of these firms retains many of the properties of the paternalistic Anglo-Saxon family business. A hierarchy is utilised within which authority is supported by mutual self interest within the group. It is in extending the network links beyond the immediate family that the Overseas Chinese networks differ to those emanating from other cultures. Rather than utilising the extended family to support an extension of the network, more broadly-based ethnic and regional ties are relied upon. There is a tendency for people within one regional grouping, such as Hokkien or Chiu Chow, to stay within a certain range of occupations and actively co-operate [9, p. 36]. Links between groups of these firms, based on the needs for supplies, labour, customers and information, are founded on mutual trust. Redding explains this as follows:

> Because of the critical nature of the external needs, and because of the traditional lack of a legal structure able to enforce agreements, a strong ethic of trust has developed, and would appear to serve the society well. It operates within very specific and limited boundaries, but a person's word is his bond, especially in business transactions, and without a sound reputation in this regard, it is difficult to function. One of the outcomes of this networked social structure is the efficiency of transactions costs in economic exchanges [9, p. 213].

The operation of such co-ordination mechanisms is widespread throughout the Chinese business community in South East Asia and has enabled relatively small-scale businesses to operate successfully in many industries of international importance, most notably in light manufacturing industries such as textiles, glassware, jewellery and furniture. In contrast to the previous example of the Nathans, the Overseas Chinese family firms remain small scale but operate within a network of trust which allows complex co-ordination to be achieved at low transaction cost and without the need for internalisation; an example of the inter-firm network of the top right cell of Figure 1.

A further contrast in the use of family mechanisms arises from the example of the Japanese pre-war Zaibatsu and their international manifestation, the Sogo Shosha. These organisations utilised the strictly Japanese concept of family to create hierarchical economic institutions that replicated the traditions of the family within the firm. Yoshino and Lifson explain this as follows:

> Just as basic an instrument of control as the Western form of organisation were the traditional Japanese values, which emphasized hierarchical relationships, obligation, Confucian-based authoritarianism, the importance of collectivity, and discipline. In structuring its administrative system, the Zaibatsu drew heavily on the distinctly Japanese concept of family. Traditionally the family in Japan was more than a biological kinship group. It was a network of related households, all of whose members were subject to the authority of a single head, and it was also the primary framework for structuring all types of secondary groups. Thus to the Japanese the hierarchical arrangement of subsidiaries and affiliated companies reporting to the helm of a holding company took on a special meaning [12, p. 14].

The Japanese Zaibatsu thus utilised the concept of family in order to embrace a large group of affiliated concerns into a formalised hierarchical network which relied for its cohesion on widely-accepted, culturally-determined codes of conduct. In so doing, the Japanese recreated the social mechanism of the family in the economic sphere to produce an authoritarian structure based upon mutual self interest.

Hence, the above examples provide three different cases of family structures being used to support an economic co-ordination mechanism other than the free market and the traditional managerial hierarchy of the corporation. These are:

1. A dispersed extended-family group used to provide an international network based on trust and consensus decision-making, as in the case of the origins of Glaxo.

2. A network in which small-scale family firms comprise the individual atoms, enabling horizontal co-ordination between them based upon ethnic and regional links that allows economic functions to be organised at very low transactions costs, as in the case of the Overseas Chinese.

3. A large scale hierarchical organisation utilising existing cultural norms relating to the concept of family links in order to produce an integrated network based on family-type authority/loyalty rather than managerial control as in the case of the Japanese Zaibatsu and Sogo Shosha.

The fact that the role of family is culturally-specific means that it can be utilised to support different forms of network activity. Moreover, the different types of network can be combined to create highly complex and extensive structures. Referring to the matrix in Figure 1, the Anglo-Saxon extended family was able to provide the basis for an internationally dis-integrated firm (middle right cell). The Overseas Chinese families produced small-scale paternalistic firms (bottom right cell) which were linked to many similar firms into a complex division of labour through ethnic and regional ties (top right cell). The Japanese concept of family (bottom right cell) was used as the basic framework for the Zaibatsu. Other firms within the group were then linked by extended family or quasi-family ties (middle right cell) while still others remained nominally independent but were linked through sub-contracting arrangements which were founded on loyalty (top right cell). Hence the Zaibatsu and Sogo Shosha seem to have taken the trust-based network concept to its logical extreme, embracing the full range of potential network forms, all within the formal guise of a joint stock company.

Non-family Networks in International Business

Ethnic and regional ties of the kind described above can be supplemented by shared affiliations to institutions such as local churches, clubs based around the pursuit of leisure activities, and so on. Such affiliations proved important in the growth of much British business during the late 19th century. One particularly notable development in which networks played an important role was the phenomenon of investment groups analysed by

Chapman [4]. The origins of investment groups lies with the small merchant houses that had developed to supervise Britain's overseas trade in the 19th century. As this trade fell increasingly into the hands of specialized commodity brokers, so a number of the small merchant houses began to concentrate on the opportunities to supply these trading networks, rather than to oversee them. As defined by Chapman, "an investment group is simply an entrepreneurial or family concern whose name and reputation was used to float a variety of subsidiary trading, manufacturing, mining, or financial enterprises, invariably overseas and often widely dispersed" [4, p. 231]. The utilisation of a name and reputation provides the key to the ability of such firms to draw upon existing networks of trust. These organisations were able to link together British-based holders of capital and overseas investment opportunities;

> The old-established firms were familiar with local investment conditions and opportunities in the countries in which they had won their fortunes and reputations, while London merchant banks, company promoters, stockbrokers, and the investing public at large were wary of unproved foreign and colonial ventures, especially those in mining and manufacturing. Partners who accumulated capital during their years of overseas service would leave it invested in the organisation...The business also attracted the loyalty and capital of family connexions, friends, and a wider circle of adherents both at home and in the overseas bases [4, p. 232].

Although Chapman makes no direct reference to them, it is reasonable to assume that a variety of existing social networks, beyond that of the family, were utilised in the mobilisation of capital to fund these overseas investment opportunities. These linkages had the effect of concentrating large amounts of capital into the hands of a small group of people, but because each investment opportunity maintained a separate legal identity the degree of capital concentration has only relatively recently been recognised by business historians as matching that of the internalised American corporation.

Mira Wilkins has identified the same phenomenon of capital concentration with the so-called free-standing company. While nominally small-scale concerns, linking British-based capital with investment opportunities abroad, Wilkins' study has found that, "Although the companies were free-standing, they were not always entirely independent of one another. They were in clusters (based on varied rationales and interest groups), consisting of numerous overlapping circles of individuals and enterprises" [11, p.265]. Hence the concentration of capital that was effected by these arrangements tended to be founded on well-defined social groups (clusters) involving promoters, bankers, inter-locking directors, solicitors, accountants, M.P.s, and skilled engineers. As Wilkins points out, "The pattern of investment is partly explained by a desire to spread risks and partly by a wish to let 'friends' share in a profitable opportunity" [11]. Again, social groups have been utilised to support an extended network of international business enterprise.

The broad-based social networks which operated in this context served to utilise trust and reputation to substantially lower the transactions costs of bringing together capital investors and relatively small scale entrepreneurs involved in international trade and production, ultimately creating a network of diverse economic activities linked to a relatively small group of capitalists. The social network involved in this example would have embraced people connected by a variety of family ties, linked educational backgrounds and other affiliations. At its core, however, lay the City establishment [4, p. 246].

Conclusion

This paper has begun to explore how networks based upon trust can in theory, and did in the past, allow forms of international economic co-ordination to arise which may be less costly to administer than arms-length, market-based transactions but which do not require the formation of the managerial hierarchies of conventional internalised firm structures. They rely, rather, on an established network of mutual trust which allows transactions costs to be circumvented without the need for formal lines of authority to be put in place.

Given that many of the networks explored in this paper failed to thrive in the 20th century and were eclipsed by multinational corporations utilising managerial hierarchies it is necessary to consider whether (i) this latter organisation represented a superior institutional framework in some absolute sense, particularly with respect to its role in fostering professional management, or whether (ii) the specific requirements of the technical industries of the second industrial revolution were especially appropriate environments for the integrated corporation, or whether (iii) the economic and political upheavals of the period between the two world wars were so damaging to existing international network structures that the self-contained structures of multinational corporations were able to usurp their role of co-ordinating international economic activity in a period of increased turbulence and uncertainty.

Given the shape of the changes which are currently occurring in the forms of international business operations, a working hypothesis might be that, due to their robustness, managerial hierarchies represented a superior form of international economic organisation during a period of disruption which witnessed the decay of a colonial-based international structure to one of economic nationalism. Having re-established industry networks of international economic organisation, these institutions may be in the process of developing more flexible, inter-firm networks that allow greater scope for innovation and which will perhaps eventually leave the model of the internalised managerial hierarchy as the obsolete legacy of a past era.

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