

TRUST, BUSINESS RELATIONSHIPS AND THE CONTRACTUAL  
ENVIRONMENT

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## **Abstract**

The role of trust in vertical contracting relationships between firms in Britain, Germany and Italy is investigated with a survey of 60 firms. After a review of the literature in which the nature of trust is discussed and set against a background of social norms and legal systems, data is presented to describe respondents' perceptions of the role of trust in their trading environment, their strategies to foster trust and their reactions to the breakdown of trust. Whilst there was some evidence of differences in the basis of trust between countries, the similarities were more pronounced than the differences.

# TRUST, BUSINESS RELATIONSHIPS AND THE CONTRACTUAL ENVIRONMENT

## 1. Introduction

Trust is seen as having a central role in generating cooperation in business relationships. The operational efficiency of productive systems relies on how well components, products and processes are designed and made (or trained in the case of labour), the timeliness of the delivery of constituent parts and the care by which products are fashioned and assembled and depends in large measure on how effectively the disparate parts of productive systems work together. Cooperation also extends to the sharing of information needed for rapid responses to changes in demand and supply and ensuring knowledge of new products, processes and forms of organization is rapidly diffused<sup>1</sup> throughout the productive system thus maintaining its dynamic efficiency, and thereby its capacity to survive through innovation and adoption to changing external conditions<sup>2</sup>.

Traditionally in economics the securing of cooperation has not appeared a problem. Markets function to provide information, price incentives and the opportunities to select amenable partners from amongst a large number of equally well qualified alternatives, so that cooperation is spontaneously generated and trust guaranteed. But the conditions for the existence of “perfect competition” are too exacting to be taken as the norm for business relations in reality. Monopoly in supply and/or demand, concentrated control of specific assets, privileged access to information and difficulties in securing and monitoring performance generate asymmetric bargaining power between trading partners and the opportunistic use of this advantage risks retaliatory withdrawal of cooperation by weaker parties and this in turn reduces operational and dynamic efficiencies (You and Wilkinson, 1995; Deakin and Wilkinson, 1995).

Proposed solutions to what orthodox economists regard as *market failure* leading to *transaction costs* include the development of authority relationships, legal enforcement, self-enforcement and enforcement by social norms (You and Wilkinson, 1994; Deakin, Lane and Wilkinson, 1993; 1994; Arrighetti, Bachmann and Deakin, 1997). It is suggested that high transaction

costs in decentralised markets are countered by vertical integration through the firm; the 'authority relation' of employer and employee 'supersedes' price as the mechanism for coordinating economic resources, and 'conscious power' displaces impersonal, arms-length exchange (Coase, 1937; 1988). One way of expressing this insight is to say that *competition* and *hierarchy* are alternative forms of economic coordination, and that the *market* and the *firm* are the alternative governance structures to which they correspond. The notions of relational links within *networks* of firms has recently been added as a third set of alternatives (e.g. Loasby, 1994; Powell, 1990). Within such networks, cooperation has also been linked to social institutions such as trade associations, cultural norms, community and ethics. What is not clear in this approach, however, is why such social norms emerge in certain social and industrial contexts and not in others (Lorenz, 1988; You and Wilkinson, 1994).

Increasingly, trust has come to be seen as playing an essential role in securing cooperation by underpinning contractual relations of various kinds (Gambetta, 1988). From a transaction cost perspective, trust reduces the information and monitoring which are inherent in complex principal-agent relationships and in court-based enforcement of agreements. The greater the degree to which relations in a productive system rest on trust, the lower will be both the costs of incentive (or threat) necessary to induce a given degree of cooperation and the costs of monitoring and enforcing the incentive structure concerned. But the debate has taken the perceived role of trust beyond that of reducing transaction costs and the functions of trust are seen to include a major determinant of *X efficiency* (Sako, 1992) and a central ingredient of the *new competition* (Best, 1992).

Important insights into the role of trust in business relationships are provided by social systems theory (Lane and Bachmann, 1996; Luhmann, 1979, 1988). Here, trust is seen as reducing the complexity inherent in a given system by enabling individual agents or actors to set up mutual expectations about their future behaviour: one who trusts another acts as if that other's actions are, to a degree, predictable.

In this respect, trust and power can be regarded as functional equivalents: mediums by which mutual expectations are coordinated (Lane and Bachmann,

1996). Adapting this idea to an economic context, we may say that power and trust are both means by which cooperation can be achieved at greater overall efficiency within a productive system, in terms of the reduced cost of putting incentives in place, monitoring performance and applying sanctions, and with greater potential benefits in terms of information flows and adaptation through innovation.

Power and trust nevertheless differ in important respects as means of responding to contractual uncertainty. While trust bears the positive connotation of a sharing of the rents to be gained from cooperation, with power it is more a question of a negative threat of a sanction being applied to gain compliance. In trading relationships based on asymmetry of power, characterised by the actual or potential deployment of *personal* power (Lane and Bachmann, 1996) the weaker party usually has means available to counteract the threat posed by the power holder; asset specificity<sup>3</sup>, for example, rarely if ever creates relationships of complete inequality. Therefore, relations based on the exercise of *personal* power as opposed to the fostering of reciprocal trust inevitably carry with them higher monitoring costs designed to discover and penalise 'defection' by the weaker party; and the dynamic benefits which flow from innovation and creativity based on the synergistic exchange of knowledge can be attained only with great difficulty in relations where trust is lacking. But this is not necessarily the case with what Lane and Bachmann (1996) described as *systems* power where the authority resides in the institutions and organisations within which individual business relationships are embedded and which, as will be argued below, may be related with rather than opposed to trust.

However, information is scarce about what trust means to people in business and how they see it as being established and maintained. The aim of this paper to contribute to this understanding by reporting on a survey of the perception of trust amongst a sample of employers and managers in Germany, Britain and Italy. The remainder of this paper is divided into five sections. Section 2 reviews the literature on trust in trading relationships. Section 3 describes the survey of German, British and Italian firms upon which the study is based. Section 4 briefly outlines the trading environment, such as the nature of trading relationships and pressure of competition, as seen by the respondents. Section 5 considers what trust in business relations means

to the managers of firms, how it is fostered and how they respond to a breakdown of trust. Actions associated with trust are examined in Section 6 where factor analysis is used to identify important underlying dimensions of trust. The concluding section summarises the findings and tentatively links the underlying dimensions of trust to inter-country differences in contractual environments.

## 2. Trust, power and economic organisation

There are three dimensions to trust in business relationships which are not usually distinguished with the effect that the precise role of trust is not always made clear. These are: the meaning of trust; the role of trust and the process by which trust is established and maintained. Reliance on and confidence in the truth, worth, reliability, etc of a person or thing<sup>4</sup> is what constitutes a trusting relationship, i.e. the substance of trust. In a business relation, trust can be expected to mean at a minimum that the supplier can be relied upon to deliver on time the product or service of the agreed design, quantity, quality and price and that the customer can be relied upon to accept the delivery of the order and to pay up fully and on time. Moreover, although trust may extend beyond a specific exchange relationship, in business relations its central focus remains the economic interests of the trading partners.

The role of trust can be seen as reducing complexity by increasing certainty in business relations. *Contractual trust* and *competence trust* (Sako, 1992) reduces the costs of monitoring and enforcement and provides assurance that the supplier can be entrusted to carry out a task to the required specifications and quality requirements without expensive vetting. *Goodwill trust* provided a third category which Sako argues occurs when “someone .... is dependable and can be endowed with high discretion, as he can be entrusted to take initiatives while refraining from unfair advantage taking” (Sako, 1992, p.39). The important point is that whilst the role of contractual and competence trust are specified within existing technical and contractual relationships between trading partners the role of goodwill trust extends beyond existing relations and includes the transfer of new ideas and new technology. Thus, whilst contractual and competence trust mainly benefit operational efficiency, goodwill trust also contributes to the dynamic efficiency of productive systems.

The literature on how trust is fostered and maintained is extensive and numerous different ways by which trust is established and sustained have been suggested<sup>5</sup>. A contrast which is frequently drawn is that between *calculative or self-interested* trust versus *personal or social* trust. Calculative trust is seen as developing from the strategic interaction of self-interested economic agents and is maintained as long as serves their self-interest, the possibility of defection being restrained by the sanction or retaliation which would then be deployed against them (Dasgupta, 1988). A rational-choice framework is thereby provided to explain institutional or cultural factors which are associated with trust, such as corporate culture (Kreps, 1990; see more generally Coleman, 1990).

There would seem to be, however, an inherent contradiction in a notion of trust as stemming from calculative behaviour<sup>6</sup>: at the very least, such a notion of 'trust' would seem to add nothing of significance to the analysis. It would be strictly unnecessary to speak of trust if it were merely the expression or outcome, however elongated, of private self-interest coupled with the efficient choice of contractual incentive structures. If the examples game theory gives of cultural or institutional forms which are said to be indicative of trust can well be explained in choice-theoretic terms, then the notion of trust as the foundation of cooperation is either redundant or just confusing.<sup>7</sup>

Personal or social trust, by contrast, is based on close, long-term relations, a sharing of goals and expectations and the suppression of short-term self-seeking. This can result in a degree of altruistic behaviour: there may be a willingness to forgive and forget rather than to retaliate in the face of a breach of promise, or a refraining from taking advantage of a short-term opportunity, in each case reinforcing the parties' mutual expectations that their relationship can and will be maintained in the future. The parties' behaviour is not reducible to self-interest, even of a long-term kind: it is suggested instead that social or personal trust develops from and is maintained by shared cultural values and history, the development of friendships, and gift-exchange (Lyons and Mehta, 1994). On the other hand, to see trust in terms of altruism or as some form of merging of the parties' separate self-defined interests is unsatisfactory in the context of contracts between what are (by definition) autonomous contracting parties engaged in economic exchange.

Between these extremes of egoism and altruism as alternative generators and sustainers of trust lies the reality that whilst business relations are rooted in the self interests of the trading partners, each of which has some power to pursue and protect their own interests, they also have interest in common with others which may be damaged by excessive pursuit of self interest. Trading partners derive mutual benefits from cooperation in production from which their incomes are ultimately derived, but they compete over the proceeds of production because what one gets the others cannot have. Each business relationship is therefore by its nature both rivalrous *and* cooperative. But there may be a trade-off. The pursuit of distributional self interest could precipitate a retaliatory withdrawal of productive cooperation, a lowering of operational and dynamic efficiencies and a reduction of the proceeds from production. The trade-off can be seen, in effect, as one between the short term self-interest in the share of the pie and a longer term interest shared with others in the size of the pie. The size of the pie is determined by the degree to which cooperation is secured and trust can be seen as a guarantor of cooperation.

Each business relationship then has elements of immediate self interest *and* of mutuality and reciprocity the expected benefits from which are enhanced by trust. The failure to recognise this reality helps to explain much of the confusion in the literature over the precise role of trust. For example, inherent in the view of trust as personal or cultural is an opposition between trust and law, the former being seen as largely non-existent when the terms and conditions of exchange are formally laid down and agreed in contractual terms to be monitored and enforced by law. This dichotomisation of trust and law is questionable, at least in a European business context (Lane and Bachmann, 1994). For, whatever the parties' mutual interests and their facilities for progressing them, each retains clear and separate interests of his/her own which may mean the need for formal, legally-binding agreements, and instances in which contracting parties actively seek to avoid placing their agreements in some kind of legal form are rare. Although both parties know that going to court to resolve a dispute will effectively end their relationship, a formal contract specifying rights and obligations in the event of certain contingencies can be used as a means of averting this possibility. Most short-term or one-off trades involve the use of order-forms containing legally significant terms and conditions, and long-term supply arrangements



involving single sourcing are normally put into contractual form following bilateral negotiation; entering into such a contract may well be a sign of an already-existing relationship founded, at least partially, on trust. What is important here is the co-existence of trust and the more formal use of contractual documents and the existence, in the background, of the legal system of contract enforcement, which, possibly, plays a part in building and maintaining trust.

In this context, a consideration of the role of institutions may help clarify the picture (Lane and Bachmann, 1994). Luhmann (1979: 40), for example, looks for 'the foundations of trust in the social order'. Law is one important mechanism for dealing with the essential riskiness of trust: 'legal arrangements which lend special assurance to particular expectations and make them sanctionable... lessen the risk of conferring trust' (Luhmann, 1979: 34). Similarly, Zucker suggests that even trust of a personal or cultural kind - which she defines as 'process-based', in the sense of arising out of long-standing relationships, or 'characteristic-based', that is to say resting on common family, ethnic or religious characteristics - needs to be supported, in modern economies, by a form of trust which is rooted in stable institutions. This *systems* trust (Lane and Bachmann, 1995) operates when trust is tied to formal, societal structures which have an existence separate from the material preferences, motivation and actions of individuals. Institutional forms therefore are not reducible to rational choice considerations, but play an independent role in structuring individual agency.

The importance of institutions in trust formation has been demonstrated by the study of the effect on the contractual environment of the interaction between the German legal code and the more private ordering of business relations in that country through trade associations (Lane and Bachmann, 1995). The German trade associations regulate against such practices as late payment and unfair pricing (selling below cost price and granting unjustified rebates), arbitrate disputes and organise countervailing measures against excessive market power to which members may be collectively subjected. They also establish quality and product standards, collect and disseminate technical and cost information and therefore 'By providing a common stock of knowledge and a shared set of norms for production and exchange they coordinate expectations and remove ambiguity from inter-firm relationships'

(op cit, p18). The workings of the trade associations are supplemented and strengthened by the general legal code of which businesses are highly knowledgeable and to which contracting must conform. The general legal code requires firms to trade in good faith, agree prices which are just and engage in competition which is fair. This is further strengthened by the Standard Contract Term Act which was enacted to protect the weaker party to contract. As a consequence, the contractual environment in Germany is characterised by norms, rules and standards which are either legally binding or made *de facto* obligatory by the wide and systematic involvement of the industrial community their production and implementation. These, and the code of business ethics they foster, constitute expected behaviour to which business people conform more as a matter of course than as a matter of business strategy. In turn, this helps create an environment in which conflict is contained, performance assured and information provided outside the contracting procedure, where markets are stabilised by the effective trading standards which help preclude destructive competition and where the ability of smaller and weaker companies to survive and prosper are not unduly threatened by unfair terms and conditions imposed upon them.

Thus, whilst it is important to bear in mind that the objectives of relationships individual firms have with others are grounded in their own profitability and viability, it is also important to remember that securing those objectives through effective production and trade requires the overcoming of both the uncertainty and the operational and dynamic inefficiency arising from distrust. Therefore, whilst not wanting to play down the importance of ethics or morality in business life, the establishing of trusting relationships can be regarded as enlightened self-interest rather than as an unselfish contribution to a greater good. In this a distinction can be drawn between the process by which individual firms form trusting relationships with each other and, secondly, the wider institutional and organisation framework within which the individual relationships are formed. It can be reasonably argued that the more effective the contractual environment is in increasing the information and reducing the conflict, monitoring, and risk from the individual relationship the greater will be the potential within the latter for trust building. The importance of the quality of the environment, the quality of the individual relationships *and* the interaction between them for establishing and sustaining trust is strongly supported by the research by Dei Ottati (1994) on Italian

industrial districts in which she draws a distinction between *collective* and *personal* trust. She treats *collective* trust as capital in which the business community invests and which creates an environment in which high business standards are expected. The value of the collective trust enhances and is enhanced by the personal investment by individuals in building and sustaining trusting relationships with each other. The distinction between the individual and collective elements in the formation of trust also helps to explain the diversity both within and between countries which is an important finding of the present study and to which we will return in the conclusions.

### **3. The survey**

The survey was designed to explore the nature of contractual relationships between firms in vertical trading relationships and how these are influenced by the *contractual environment* - the social, institutional and organisational context within which contracts are formed<sup>8</sup>. To explore the effect of differences in contractual environments customer and supplier firms in two industrial sectors (mining machinery and kitchen furniture) were surveyed in three countries (Germany, Britain and Italy). In total 62 firms were interviewed using a semi-structured questionnaire. The respondents included 14 customer firms (ie. the manufacturers of kitchen furniture and mining machinery) - 6 German, 4 British and 4 Italian - and 48 suppliers - 17 German, 16 British and 15 Italian - spread evenly over the two industrial sectors. The sample of main firms was drawn from lists of firms obtained from trade sources. It was originally hoped to match each main firm with its suppliers. In the event this proved difficult because the main firms were reluctant to identify their suppliers by name. Consequently, the sample of suppliers was also drawn from a list obtained from trade sources; in some case matches between main firm and suppliers were achieved by these means. Of the firms initially contacted around 40% were interviewed.

### **4. Competitiveness, competition and trading relationships**

The 62 firms surveyed reported that competitive success depends on a wide range of product characteristics and over the previous 6 years competition had intensified. Sixty-seven percent of the firms said that price, 77% said that quality and 71% said that ability to deliver on time were important for

competitive success in 1994. Of the firms for whom prices were important for competitive success, 63% said that this importance had increased since 1988, while 47% of the firms stressing the importance of quality or delivery said that these requirements had become more stringent. Smaller proportions of firms (35%, 29%, 29% and 26% respectively) said that design, product development, product improvement or after sales service were important for competitive success but in each case the pressure had increased. Even amongst the firms claiming that these elements of competitiveness were not important a notable proportion reported that the pressure has been increasing. The impact on the vertical supply chain of the intensification of competition is suggested by the fact that of the firms 59%, 33%, 54% and 34% reported that the control exercised by customers over prices, batch size, delivery dates, and credit terms respectively had increased compared with the 14%, 12%, 20% and 14% who said that customer control over prices, batch size, delivery dates, and credit terms respectively had declined.

Despite the hard trading environment, the large majority of buyer and supplier firms we interviewed preferred long term business relationships. Almost all the firms were interested in such links with 80% of the German and 55% of the British saying they were interested in forming long term relations in all circumstances. The Italian firms were more specific, half looked for long term relationships when the products being traded were customised and half said they were interested in such relationships when they yielded mutual benefits. Other motives for forming long term relationships between firms included security, strategic reasons, specific investment and the exchange of confidential information. However, despite the clear advantage they saw in long term links, 84% of the Italians, 42% of the British and 30% of the German saw advantages in short term relations. These were seen as having potential to utilise spare capacity, to exploit price advantages, to exploit the economic position of other firms and as a means of retaining independence.

All the German and British respondents and half the Italian respondents reported having problems with their trading partners. The most important complaints in all three countries were over price, quality and delivery, and although a similar proportion of customer and supplier firms complained about prices, 80% of the customer firms identified quality and delivery as problems compared with less than half the suppliers. Only a small proportion

of firms in each country saw carefully worded contracts as a way of overcoming problems, whereas personal contacts was seen as important by 80% of the German and British firms but less than 40% of the Italians. Customer firms told us they were more likely to change suppliers over poor quality and delivery than prices whilst few suppliers claimed they would switch customers if they made quality and delivery demands which were too high. However, 66% of the supplier firms said they would switch from customers over low prices but less than 20% of customer firms gave prices being too high as reasons for changing suppliers.

The consensus amongst the respondents was that trust has become more important in business relationships since 1988. Overall 45% believed that the importance of trust had increased compared with 17% for whom trust had become less important. A larger number of customer firms (75%) believed that the importance of trust had increased than did supplier firms (39%). For Germany, Britain and Italy the proportions believing trust had become more important were 35%, 40% and 61% respectively whilst 25%, 20% and 6% respectively claimed that trust had become less important. The hardening of the economic environment was the most frequently cited reason both for the decline *and* for the increase in the importance of trust. These apparently contradictory views can be explained in the words of the respondents. Trust has become less important because, "Everybody tends to reduce his/her interest to money making in business these days" and "business is more cut-throat". Trust has become more important because, "Market conditions are imposing greater performance demands. There is intense competition and pressure to raise performance levels. So trust matters a great deal" and "In the changed market situation, risks have increased and trust serves to limit risk".

Thus, for the firms surveyed, the increasingly competitive buyers' market required better products at keener prices. This increase in market demand across a broad range of product characteristics put pressure on supply chains in which satisfaction with the performance of trading partners was less than complete. This dissatisfaction manifested itself in widespread complaints from customer firms particularly over the quality and delivery of supplies, whereas the complaints of suppliers put more emphasis on prices. However, in all three countries there was a much greater preference for direct and

personal rather than formal routes to overcoming these difficulties. Trust was seen as having a central role to play in responding to the hardening trading environment helping to improve performance and reduce risk. But, on the other hand, the opportunities created by the trading environment for firms to exploit their bargaining power might serve to erode trust. In this respect, in circumstances where customer firms appear to be putting pressure on their suppliers for high quality and more responsive delivery at less favourable prices, it is not perhaps surprising that buyers were more likely than suppliers to emphasise the increasing importance of trust, while the incidence of perceiving trust as less important was greater amongst the suppliers.

## **5. Perceptions of trust in business relations**

The analysis in this and the next section focuses on the section of the questionnaire which explored the respondents' perception of what trust means, actions associated with trust and characteristics of business activities and organisation associated with the development of trust. It went on to ask how the respondents establishing their trustworthiness, decided whether to trust other firms and responded to untrustworthy behaviour. Other sections of the questionnaire explored practices which have been portrayed as expressing trust relationships<sup>9</sup> which at a later stage of the analysis will be linked to the respondents' perceptions of trust.

What trust in business relationships means to the respondents is summarised in Table 1. It meant nothing, according to the self-reports of a small proportion of the respondents. For 23% it meant adherence to high behavioural standards (honesty, openness, fairness, reliability, "your word is your bond" etc.). Actual experience of how trading partners behave was important in the meaning of trust for 31% of the respondents whilst for 28% trust meant sticking to agreed terms. A small proportion emphasised active cooperation in the form of, for example, information sharing or joint product development and for others trust meant informal understanding going beyond contract. No significant differences were found in the pattern of the responses of supplier and main firms or between the firms in different industrial sectors. However, as is shown by Table 1 a significant larger proportion of Italian firms emphasised the importance of experience.

The respondent thus responded to the question about the meaning in two ways: by describing the substance of trust - honesty, reliability, openness, fairness, cooperativeness, and adhering to what has been agreed etc.; and/or the processes by which trust is established. In this latter respect the experience of how trading partners behave was seen as important; as one respondent put it, "Trust is doing what you say you will do. If I trust somebody, he will do what he says, and that comes out of experience". The following two questions were more directly concerned with the processes for establishing trust.

The firms were asked what strategies they adopted to establish their trustworthiness with other firms. Table 2 shows the importance for establishing trustworthiness of creating a reputation for competence, reliability and straight dealing and this together with cooperation and responding quickly accounted for the responses of 77% of the firms in all countries and around 96% of the German, 76% of the British and around 61% of the Italian. Establishing personal contacts or long-term relationships were not seen as important for establishing trustworthiness except amongst the British respondents of which 35% volunteered the former. It is also important to note that 33% of the Italian firms reported that they had no strategy for establishing their trustworthiness to other firms.

How the respondents decided to trust other firms can be grouped under four main headings: instigate inquiries, personal contacts, satisfaction with performance and long-term experience (Table 3). The likelihood is that instigating inquiries and in some case possibly personal contacts are *ex-ante*, referring to decisions prior to establishing business relations, whilst satisfaction with performance and long-term experience and also possibly personal contact are clearly *ex-post*. Inquiries (within the trade, by company representatives and, by one German firm, through a detective agency), were instigated by 28% of the respondents; 18% made use of personal contacts, 30% satisfaction with performance and 39% long term experience as ways of deciding how to trust. A larger proportion of the Italian respondents relied on satisfaction with performance compared with long term experience than did German or British firms and a relatively small proportion of Italian firms relied on making inquiries and personal contacts. A comparison of the British and German responses shows that when deciding to trust a smaller proportion of British firms rely on making inquiries and a larger proportion depend on personal contacts.

When asked how they dealt with untrustworthiness in business relationships more than 50% said they ended relationships immediately, 21% made contractual arrangements to cover the risk and 14% made more informal efforts to sort things out. All but 2 (88%) of Italian respondents to this question claimed that they terminate relations immediately (Table 4). Such immediate action was taken by 50% of British respondents whilst 25% tried to sort out differences and 25% made contractual provisions to cover risk. An even smaller proportion of German firms responded to untrustworthiness by ending relationships (32%) whilst a much higher proportion (41%) responded by making contractual provisions to cover risk.

For the respondents trust has both substantive and procedural elements. Trust is seen as being able to depend on other firms to be honest, reliable, open, fair, cooperative and to keep their word whether given contractually or otherwise. In the process of building and maintaining trust the respondents identified the importance of establishing or investigating reputation, experience of performance, personal contacts and long term relationships. The ways of dealing with untrustworthiness included the ending of the relationship, making contractual or other provisions to limit risks and more informal ways to resolve differences. There was a broad consensus across the three countries about the meaning of trust and examples of the various process for developing trust were found in each country. Nevertheless, inter-country differences of responses are observable but these are differences of degree rather than kind. A relatively high proportion of the Italian firms surveyed associated favourable past experience with trust, saw themselves as having no strategy for establishing themselves as trustworthy, volunteered satisfaction with performance as a means of deciding whether other firms could trust them and chose to terminate relationships when other firms proved untrustworthy. This together with the evidence of the greater preference for short term contracts suggests an impersonal approach to business relations which may be repeated if proved satisfactory. A relatively large proportion of British firms said personal contacts were important to establish themselves as trustworthy and in deciding whether other firms could be trusted, and a relatively large proportion said they tried to sort out the differences when another firm proved untrustworthy rather than end the relationship. This suggests that in establishing and maintaining business relations informal personal links are relatively important. In Germany a higher proportion of



firms emphasised the importance of reputation of competence, reliability and straight dealing for establishing themselves as trustworthy, and investigated the reputation of others before they decided whether they could be trusted and resorted to contractual protection when other firms proved untrustworthy. This is indicative of a system in which firms are careful about entering into business relationships, but when they do they expect them to be long term and difficulties dealt with within the relationships and by contractual means.

## 6. Actions associated with trust and with the development of trust

To investigate more closely what they perceived as constituting trust in business relationships the respondents were shown a list of actions and were asked to score on a scale 1 to 10 (where 1 is of no importance and 10 is most importance) the degree to which they associated each action with trust in business relationships. The responses are summarised in Figure 1 which gives for each action the mean score for the respondents in each country. The actions can be broadly divided into three groups. There are a set of actions associated with the *contract adherence* (paying and delivering on time, maintaining high product quality at all times, preserving confidentiality, ensuring the relevant standards are complied with and honouring strictly the terms of contract). There are also a set of actions associated with flexibility. These divide into action directly related to business activity (being ready to exchange business information, honouring informal understanding and being ready to renegotiate the terms of contract at any time) which can be seen as filling in the interstices in contracts or *flexibility beyond contract*. Other actions are more social in origin (being ready to help in an emergency, being prepared to give and take and being willing to overlook occasional faults) which can be regarded as *flexibility outside contract*.

There are important inter-country differences in the ranking of the mean scores<sup>10</sup>. Statistically significant differences in inter-country scores are found for preserving confidentiality (German 9.1, British 8.0, Italian 7.7); strictly honouring contract (Italian 8.3, German 8.0, British 6.0.); prepared to give and take (German 7.8, Britain 7.7, Italian 5.9); and willing to overlook faults (British 7.3, German 5.6, Italian 4.8). When measured by the differences in average scores (see Table 5), the Italian respondents put relatively more weight

on the association between contract adherence and trust than those in the other two countries, especially in Britain. On average, the British respondents associated trust more highly with flexibility outside contract than with contract adherence. This is largely explained by the relatively high mean score given to being willing to overlook occasional faults and the relatively low mean scores to strictly honouring the terms of contract and ensuring the relevant standards are complied with. The Germans and Italians gave high average scores to contract adherence but Germans saw a greater association between flexibility and trust and especially flexibility outside contract.

The respondents were also asked to rate the importance for the development of trust of the range of actions shown in Figure 2. This question was designed to explore the importance in the development of trust of long term relations (trading and personal), collaborative links (exclusive trading, marketing agreements, joint product and process development and mutual board membership), associational links (trading and professional), similarity of cultures (enterprise and regional/national), reputation and similarity in firm size. In general, reputation for fair trading and long-term relationships had high mean scores, collaborative links had medium mean scores and associational links, cultural similarities and similarities in firm size had low mean scores.

The ranking of the mean scores of the 13 actions associated with trust is very similar for the three countries<sup>11</sup> and none of the inter-country differences in the mean scores of the individual actions are significant at the 5% level. However, the inter-country differences around the core of similarity reveals interesting patterns. German firms registered the highest scores for long term personal relationships, joint product development, exclusive trading relationships, marketing agreements, mutual board membership and second highest for long-term trading relationships between firms. They also recorded the highest score for membership of the same professional association and second highest for membership of the same trade association. Italian firms scored the highest scores for reputation for fair trading, similarity of firm size and similarity of enterprise culture, joint development of new production technology and membership of the trade association. However, Italian firms recorded the lowest scores for long term personal relationships, long-term trading relationships between firms, exclusive trading relationships and

marketing agreements although they came second highest for joint product development. British firms recorded the highest score for long term trading relationships between the firms but the lowest for joint product and production technology development, reputation for fair trading and both the associational factors. Inter-country mean scores are summarised in Table 5. The main difference revealed by Table 6 is that the Italian firms identified reputation for fair trading as more important for developing trust than long-term relationships whereas for the German and British respondents this ordering was reversed.

So far we have concentrated on average scores. Figures 3 and 4 give the distribution of firms' ratings of actions associated with trust and actions important for the development of trust. In Figures 3 and 4 the boxes are bounded by the quartiles, the black vertical line in each block gives the median and the whiskers show the edge of the main data<sup>12</sup>, with outliers being shown by separate points. These Figures show a wide dispersion in scoring of the actions. Moreover, even those with the lowest mean scoring have a significant proportion of individual high scores. Thus, although the association between mutual board membership and the development of trust has a mean score of 2.8, 26% of the respondents rated it at 5 or more. Similarly, whilst the mean score of the association of trust with willingness to renegotiate is 4.7 more than 30% of the respondents gave it a score of 7 or more.

To investigate by correlation analysis whether and the extent to which the facets of trust in Figures 1 and 2 were related to nationality, industry or status as a main and supplier firm would have required 72 (24x3) separate analyses. The first stage of the analysis was therefore to reduce the scales into a smaller number of underlying factors reflecting the important dimensions of trust. Such a process could also assist in the conceptualisation of the nature of trust. It should, however, be remembered that factor analysis is very exploratory in nature. Even with a large number of cases factor analysis can be unstable, and the use for only 62 cases is below that recommended by most theorists and practitioners who tend to recommend minima of approximately 100 cases or five to ten times the number of variables. However, as an exploratory technique, the proof of a technique is in its utility, and in this case we think that it gives useful insights into the nature of trust and a parsimonious method of describing differences between countries.

The factor analysis of the actions associated with trust (from Figure 1) produced three clear factors, which were rotated obliquely. Details of the factors are given in Table 7.

Factor 2 clearly emphasises the central importance of *contract adherence* (to use the categorisation developed above) in generating trust. By contrast, with the exception of product quality in Factor 1 which had the lowest loading and also loads on factor 2, the central theme of Factor 1 is *flexibility outside contract* and that of Factor 3 appears to be *flexibility beyond contract*.

The factor analysis of the actions associated with the development of trust in business relationship (from Figure 2) also produced three clear factors.

Factor 1 in this analysis seems to indicate a *collaborative* dimension to the building of trust. Factor 2 is a more difficult factor to interpret. However, similarity of firm size (particularly if they are relatively small) may mean that trading relations depend on a reputation as trustworthy rather than unequal power whilst trustworthiness may be an important determinant of a firm's standing in a trade association. A tentative labelling of this factor might be *reputational* factor in the development of trust. Factor 3 represents a dimension of *long term relational versus shared culture* as a basis for trust. At one extreme, trust is based in individual knowledge of each other by the contracting partners, at the other end of the continuum it represents trust based on a mutual but impersonal culture.

So far in this analysis (if the factor analysis has done its job) we have retained the essential information in the 24 items related to trust, but have reduced the complexity of the 24 items to six more fundamental dimensions of trust between firms<sup>13</sup>. At the second stage, each firm was given a score on each of the six dimensions representing their relative position on a continuous, bell shaped distribution, with a mean of 0 and standard deviation of 1. Then differences between sets of firms can be investigated on the basis of country, industry or main versus supplier firms. Each of the six factor scores was then subject to a three-way analysis for variance. None of the effects of industry or main/supplier firms was even close to significant (all  $p_s > 0.2$ ). There was, however, a significant difference between countries on one of the factor scores, and a suggestion on two others that there may be significant country effects,

but which were not quite significant with this relatively small number of cases.

The significant difference was on the *flexibility outside contract* factor. Britain had the highest mean score on this factor ( $X=+0.32$ ), showing a lot of importance attached to this aspect of trust. Germany was also slightly positive ( $X=+0.10$ ), whereas Italy was at the negative end of the spectrum ( $X=-0.46$ ). The other factor scores for which inter-country differences approached significance was on *flexibility beyond contract* for which German firms showed the highest level ( $X=+0.33$ ), Italy the intermediate position ( $X=+0.16$ ) and Britain the lowest ( $X=-0.23$ ). On the *long term relational versus shared culture* dimension Italy was at the *shared culture* end of the spectrum ( $X=-0.36$ ) whereas Britain and Germany were closer to the *long term relational* end of the spectrum.

It is, however, to be noted that these inter-country differences are a matter of degree rather than kind. This is demonstrated in Figures 5 to 7 which shows the box and whisker plots for inter-country differences referred to above. In Figures 5 to 7 the boxes are bounded by the quartiles and the whiskers show the edge of the main data, with outliers being shown by separate points. Note that even in the case of Figure 5, the strongest inter-country effect, the middle 50% of the data of each country overlaps with the middle 50% in all other countries.

## 7. Conclusions

The empirical evidence reveals a wide variety of factors associated with trust and the development of trust. There was widespread agreement amongst the respondents about the importance of some of the factors but less of a consensus about the weight to give to others. No significant differences in pattern of responses was detected between customer and supplier firms or between kitchen furniture firms and those in the mining machinery industry despite the very large differences in products, markets, organisation and technology. Significant inter-country differences were found in some of the actions associated with trust and with the underlying dimensions of trust but there was considerable country overlap in the pattern of responses.

The factors associated with trust can be broadly divided into the substantive elements of trust and the processes by which trust is established. The most important substantive element of trust in business relationships is simply that trading partners will do what they say they will do. This we have rather formally called *contract adherence* although what the respondents meant by this went clearly beyond keeping contractual promise. Compliance with the terms of contracts, observing standards and the honouring of more informal commitments were closely associated with trust. What is obvious from the responses is that however undertakings are made it is expected that they will be kept and that promise-keeping is a central component of trust. But it is not the only one: the requirement that trading partners do what they have agreed to do is qualified by the acceptance that some flexibility is needed both in a social sense - being willing to give and take, to help in an emergency and to forgive occasional faults - and in a sense more directly related to business relationships, including sharing business information, honouring informal understandings and being ready to renegotiate a contract. It would seem then that in an imperfect, uncertain world in which firms benefit from an open and reciprocal relationship with their trading partners (Sako, 1992) the role of *contract adherence* in fostering trust is tempered and supported by a degree of flexibility *outside of contract* and flexibility *beyond contract*.

The firms we interviewed perceived trust as being established by such factors as reputation for fair trading; long term personal and trading relations; and, by direct inter-linking by trading and marketing agreements and by jointly developing product and process. Less importance was attributed to the role of trade and professional associations, culture and similarity of firm in the development of trust. On the other hand, the factor analysis linked membership of the same professional association with the collaborative dimension of trust building and membership of the same trade association with established reputation for fair trading supporting evidence from other parts of the survey; these more collective aspect of business relationships serve as a framework influencing the development of individual links (Arrighetti, Bachmann and Deakin, and Lane, 1997).

Of the important dimensions in substantive aspects of trust revealed by factor analysis, no statistically significant inter-country difference in *contract adherence* is in evidence although significant inter-country differences were

found for *flexibility outside of contract* and *flexibility beyond contract*. The ordering in the importance given to the association between flexibility outside contract and trust was Britain, Germany and Italy whilst that for flexibility beyond contract was Germany, Italy and Britain. These differences can be related to the dissimilar contracting procedures between countries. Detailed formal contracts were usual amongst the German and Italian firms but were less common amongst the British firms. Moreover, whereas in all three countries it was not expected that contracts would be legally enforced, the association between honouring strictly the terms of contract and trust was significantly higher in Italy and Germany than in Britain. The other side of this coin was that the British firms more closely associated forgiving occasional faults with trust than did the German or Italian respondents so that this type of flexibility outside of contract complemented permissiveness within and visa versa. Moreover, amongst the firms in Germany, where the environment is more supportive in terms of the statutory, organisational and ethical support given to contract, there was a stronger association between flexibility beyond contract and trust than in Italy and Britain, but especially in Britain.

Of the important dimensions of the processes for establishing and maintaining trust, only for *long term relationship versus shared culture* was there anything approaching a significant inter-country difference. This, together with the evidence in Table 4 that the Italian firms we surveyed are more likely to respond to a breakdown in trust by severing business relations, lends support to the proposal that contract adherence is a social expectation within Italian business communities enforceable by exclusion (Brusco, 1992). However, this does not preclude long term relationships or flexibility beyond contract, but operates as a framework within which long term relationships between individual firms can be developed and maintained. In Italy, the belief that one's word is one's bond supported by the convention within business communities that the failure to live up to these expectations brings to an end business relationships provides the context in which business relationships are generated based on trust. In Germany, contracting is strengthened by, among other things, the statutory support given to the weaker party in the contract and by the General Business Conditions issued by the Trade Associations (Lane and Bachmann, 1995) and this forms the framework in which long term trusting relationships between trading partners develop. In

this environment firms respond to a breakdown of trust by looking for greater contractual protection. In Britain, where inter-firm relations are embedded neither in a business culture with strong beliefs in fair trading nor in strong legal and institutional regulation, trust generation and maintenance depends more exclusively on individual relationships developed over a long period. This means that trusts requires greater tolerance of faults and that a response to a collapse of trust is more likely to be negotiations at the level of informal personal contacts.

The importance of the contractual environment is the role it plays in fostering and maintaining trust in business relationships between firms. The existence of systems trust as collective capital enables firms to form and extend relationships with greater confidence and effect. Systems power embedded in legal systems, private institutions, rules and standards reinforces this by helping to ensure that expected norms of business conduct are conformed with and by punishing defection.

It was suggested above that the success of the contractual environment in supporting and maintaining trust lies in the extent to which it increases the availability of information and reduces the conflict, monitoring, and risk from the individual relationship. The more successful the contractual environment is in this respect the more it lifts from contractual and other relationships between individual firms the weight of securing and maintaining *contractual* and *competence trust* and leaves the way open for developments in the relationships beyond the terms of particular transactions to a more open ended commitment and the generation of *goodwill trust*. The shortcomings of conventional analysis for an understanding of these socio-economic processes lie in their central focus on immediate self interest as the sole incentive. This causes few problems providing the market affords the "perfect contractual environment" suppressing opportunism and guaranteeing effective cooperation. But when, as is normal, the conditions for market "perfection" are absent and it is recognised that the contract and contract enforcement cannot bear the weight of ensuring competence and contract adherence, responsibilities for these are swept into the black boxes of hierarchy, contract incompleteness and relationality in contract: a procedure which mystifies the role played by rules, norms and standards and weakens the policy relevance of theoretical development. At the other extreme, ideas that the overcoming



of “transactions costs” require the suppression of self-interest by some moral order mystifies individual incentives by sweeping them into the back box of culture. The acceptance that individuals are not blindly driven exclusively by their immediate short term self interests *and* that a trusting environment is neither a strategic device for overcoming opportunism or an impersonal consequence of a culture heritage (Sabel, 1992) opens the way for policy relevant development of theory. It also makes meaningless the discussion of whether or not the contract is trust replacing or trust enhancing without an analysis of the economic, organisational and institutional environment in which the contract and its compliance are set.

## Notes

1. However, the advantage of information dissemination may need to be qualified because of the free rider problem in which case the maintenance of confidentiality between information sharers may be essential for cooperation.
2. For a more detailed discussion see Wilkinson (1983), Tarling and Wilkinson (1987), You and Wilkinson (1994) and Deakin and Wilkinson (1995).
3. That is, sunk costs brought about by the purchase of machinery, the hiring of personnel, and other expenses which would be of little value outside of that specific relationship
4. Collins Concise Dictionary, 1995.
5. See, in particular, Luhmann, 1979; Zucker, 1986; Sako, 1992; Williamson, 1993; Lyons and Mehta, 1994.
6. Sabel (1992) denied that calculative trust could be regarded as such, preferring to describe it as *modus vivendi* (a working arrangement between conflicting interests).
7. This is also the recent view of Williamson (1993: 474), who writes that 'Kreps's use of the term "trust", especially as stated in the behavioural rules that he employs, obscures rather than illuminates' the issue of how cooperation evolves.
8. See Arrighetti, Bachmann and Deakin (1996) on the sectoral and Lane (1996) on the institutional background to the survey.
9. See, Lane and Bachmann, 1996; Arrighetti, Bachmann and Deakin (1997) and Lane (1997).

10. The rank correlations of the mean scores for the 11 actions are;

	Germany	Britain
Britain	0.7973 *	
Italy	0.5390	0.3387

\* significant at the 10% level

11. The rank correlations are:

	Germany	Britain
Britain	0.9284**	
Italy	0.8676**	0.9326**

\* significant at the 1% level

12. The main body of the data is defined as one and a half times the inter-quartile range higher than the upper quartile and one and a half times the inter-quartile range lower than the lower quartile. If there are no data points this far out the whiskers extend to the furthest data points (1 or 10 in the case of Figures 3 and 4 (C Marsh, 1988, pps. 107 to 110)

13. With *personal* and *shared cultural* as alternatives.

## TABLES AND FIGURES

Figure 1

### Actions associated with trust in business relations: mean scores.

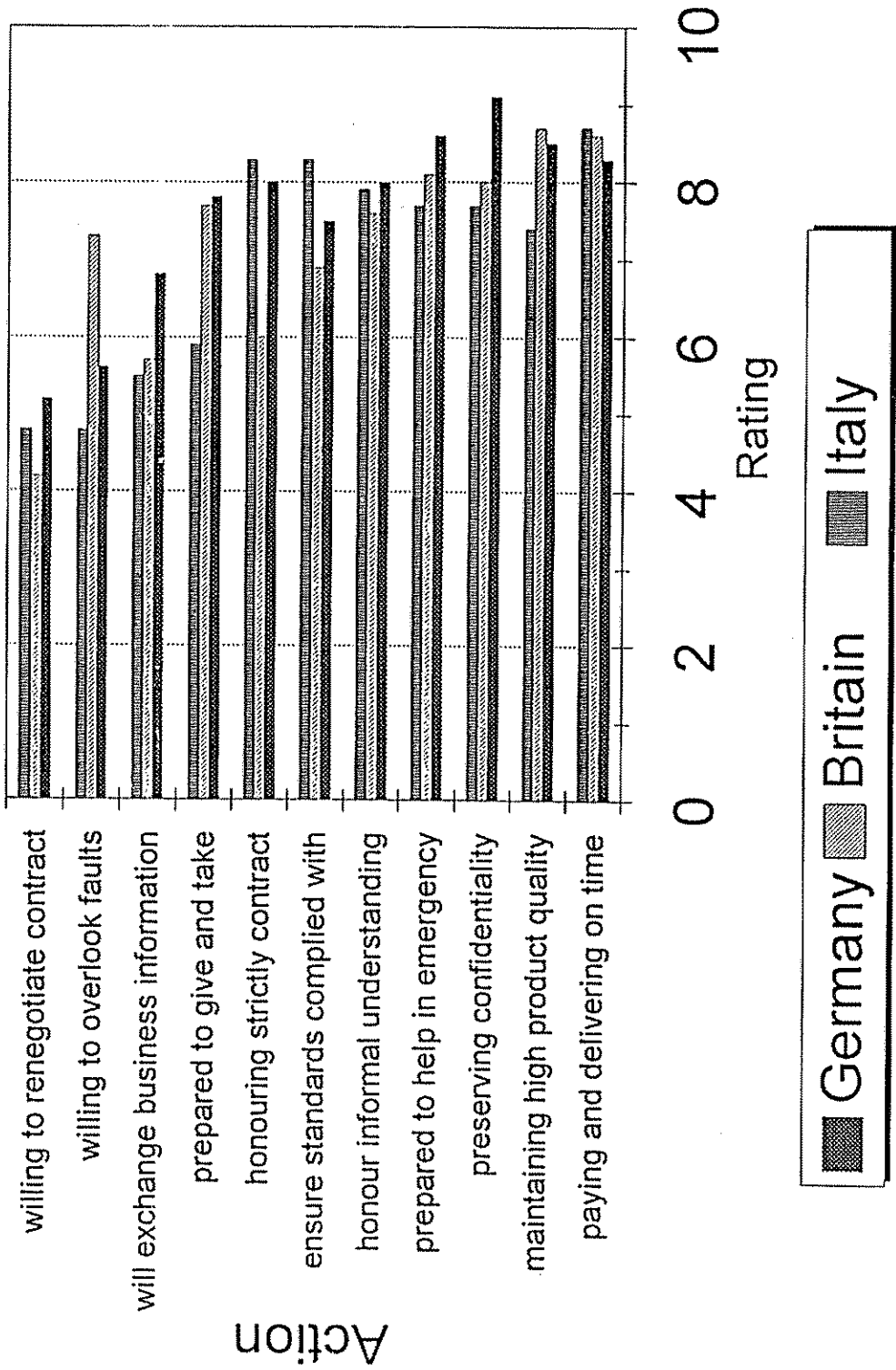


Figure 2

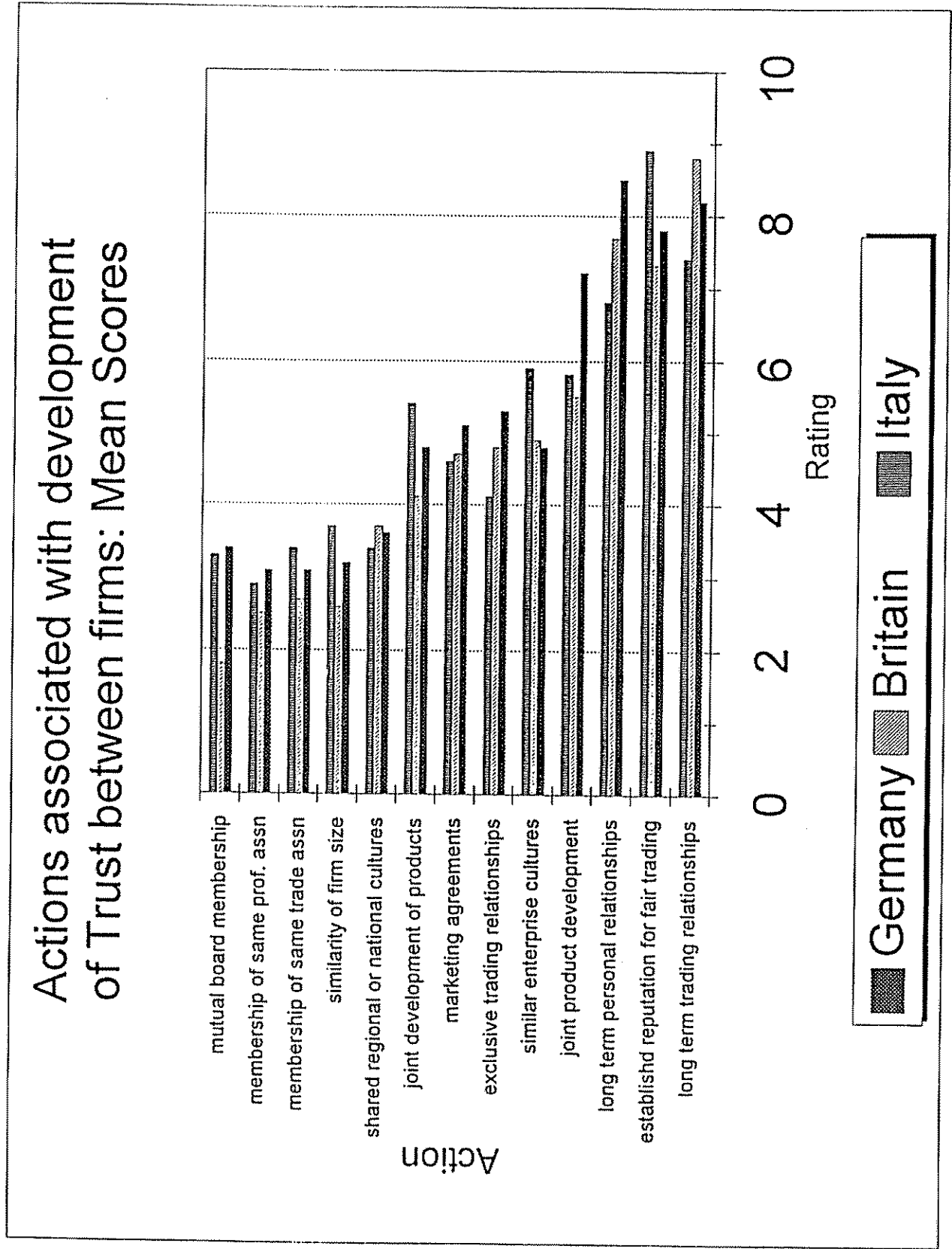


Figure 3

Distributions of firms' ratings for each action associated with trust.

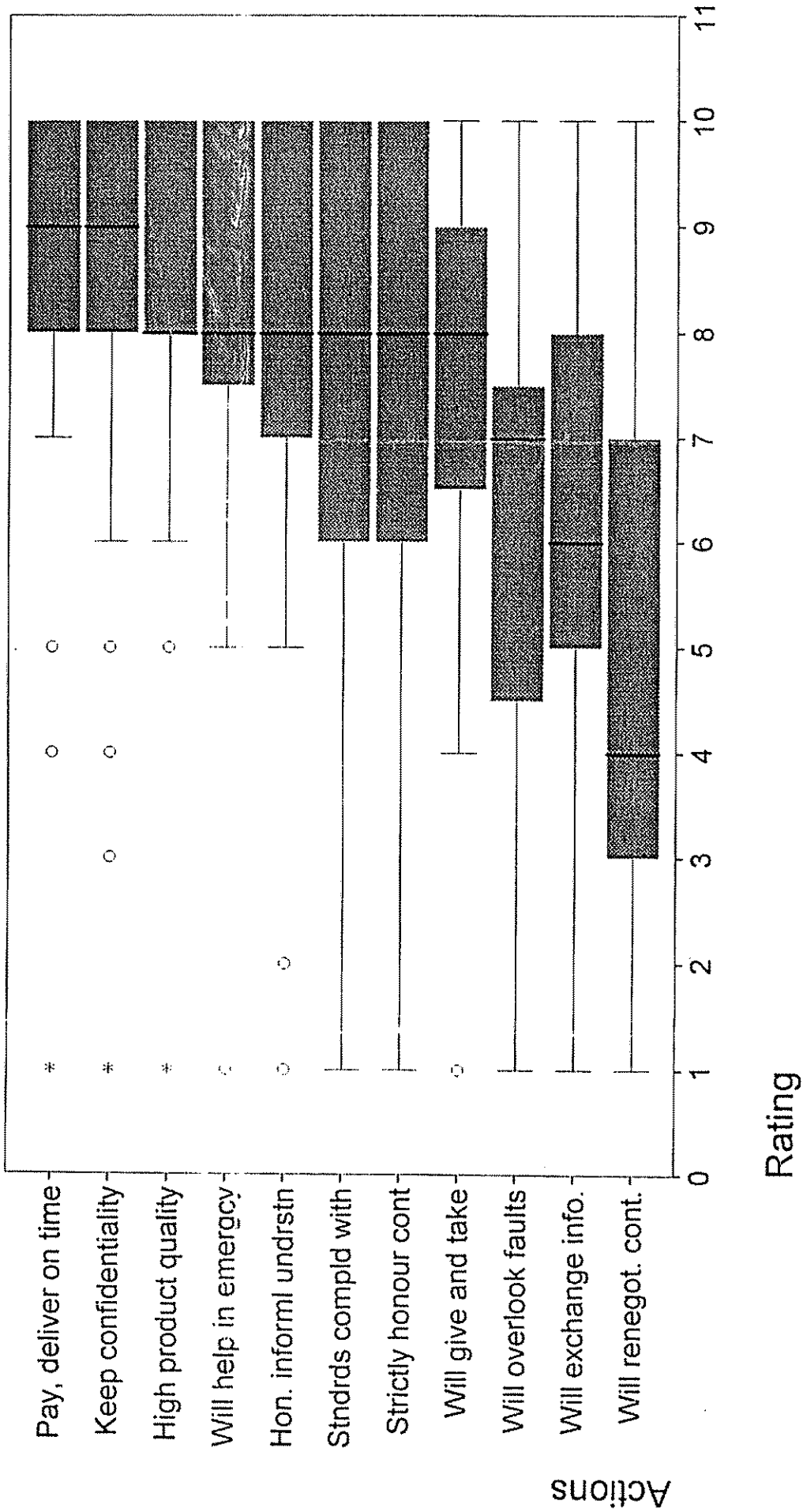


Figure 4

Distributions of firms' ratings for each action associated with the development of trust.

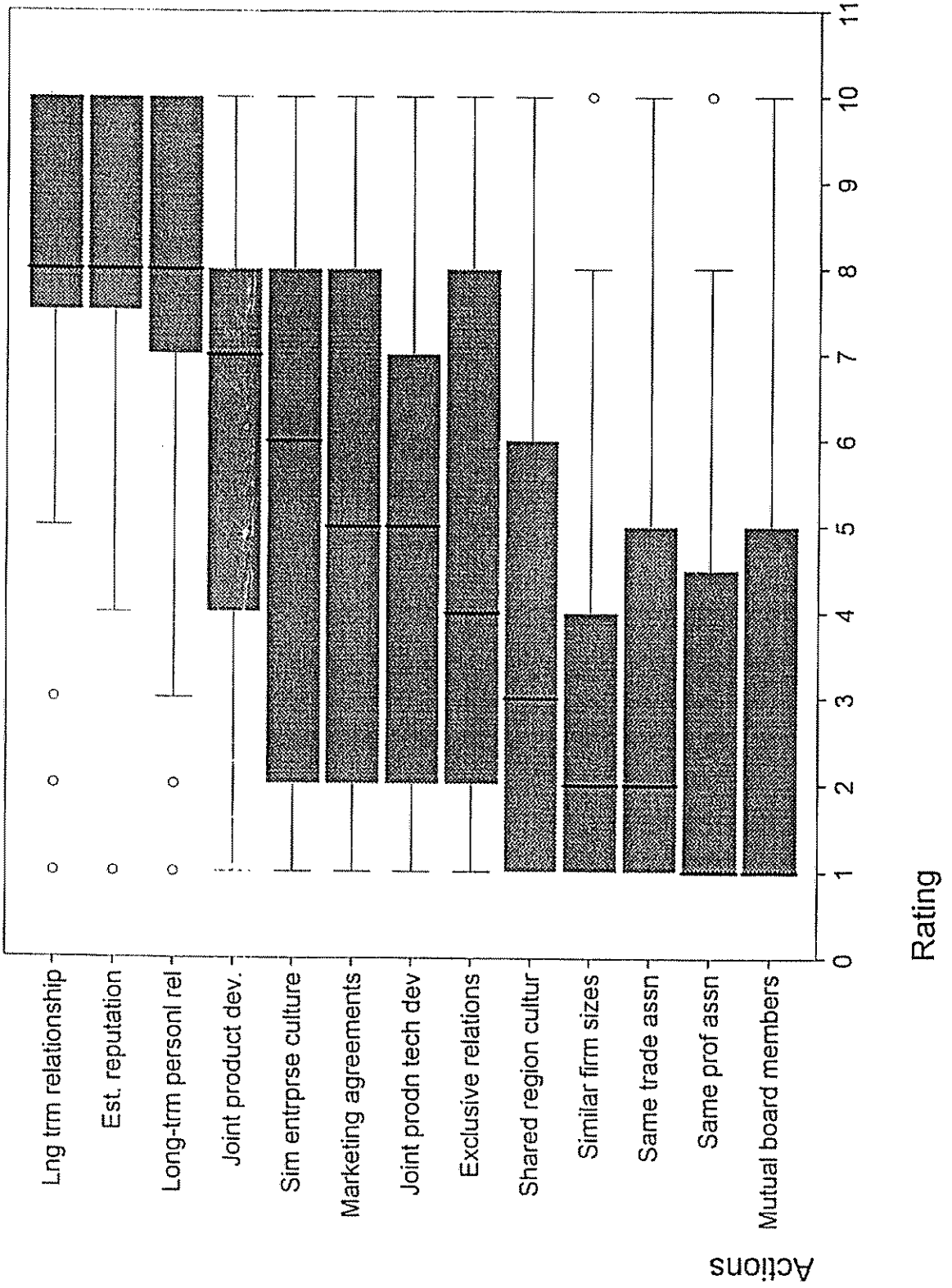




Figure 5

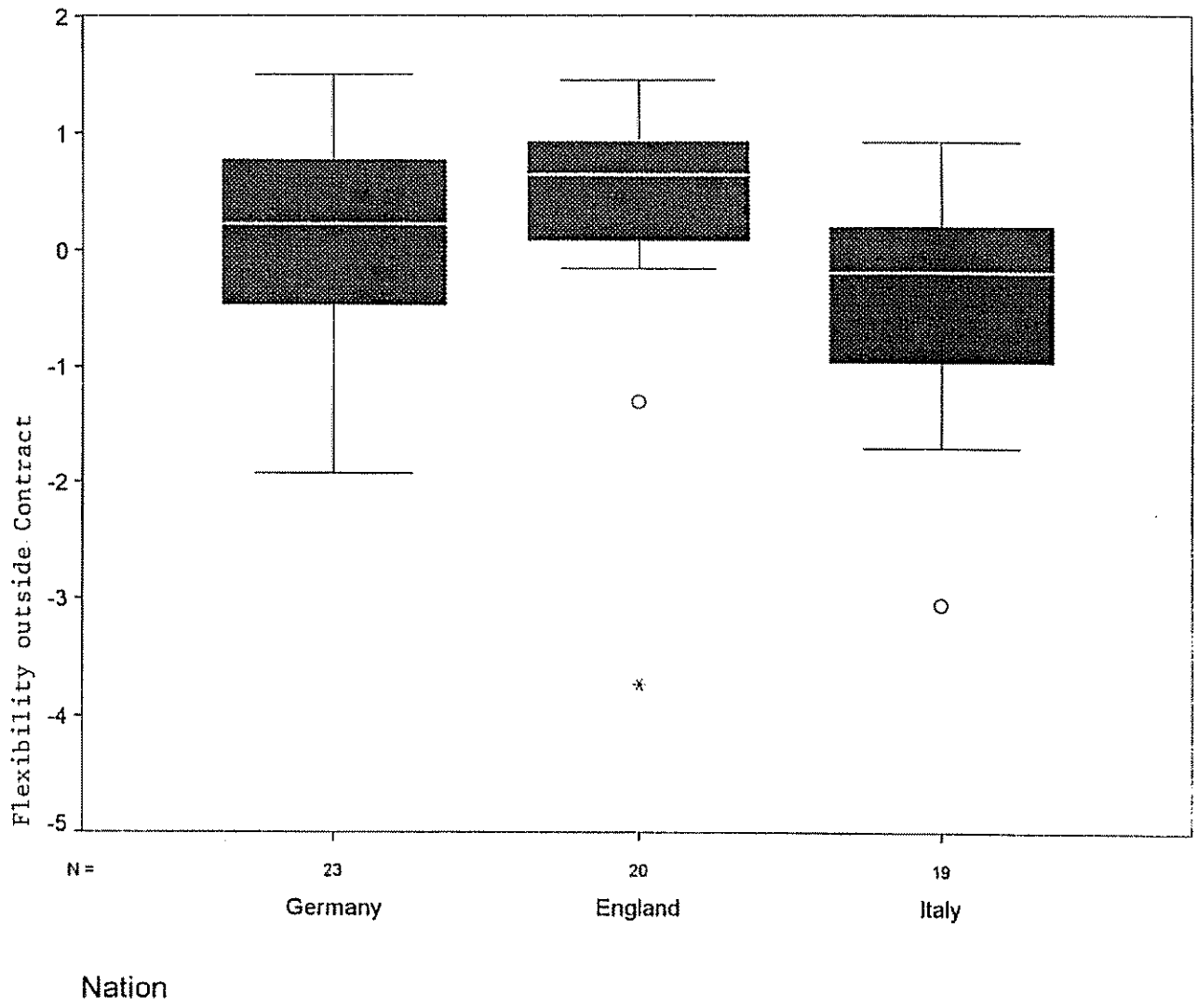
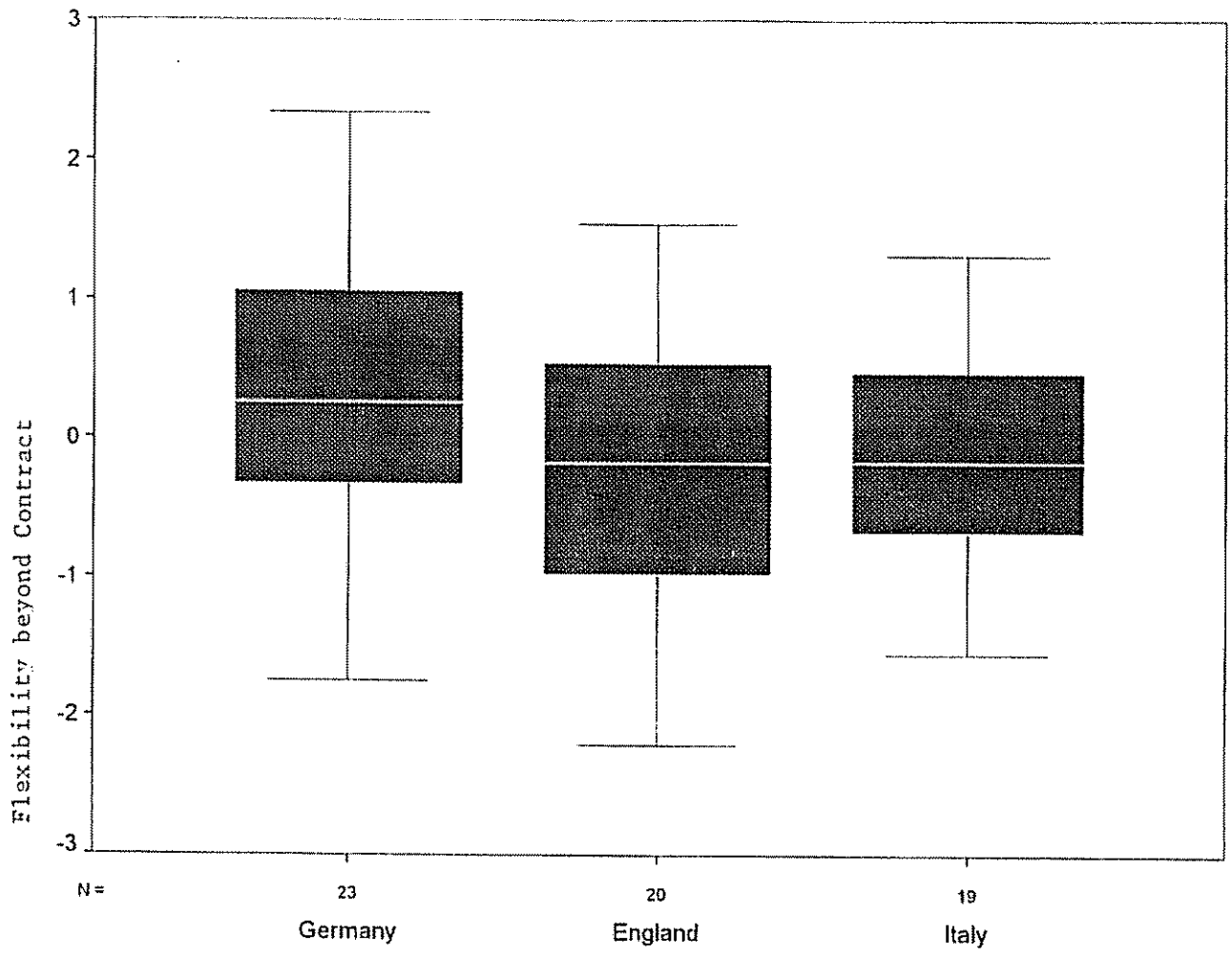
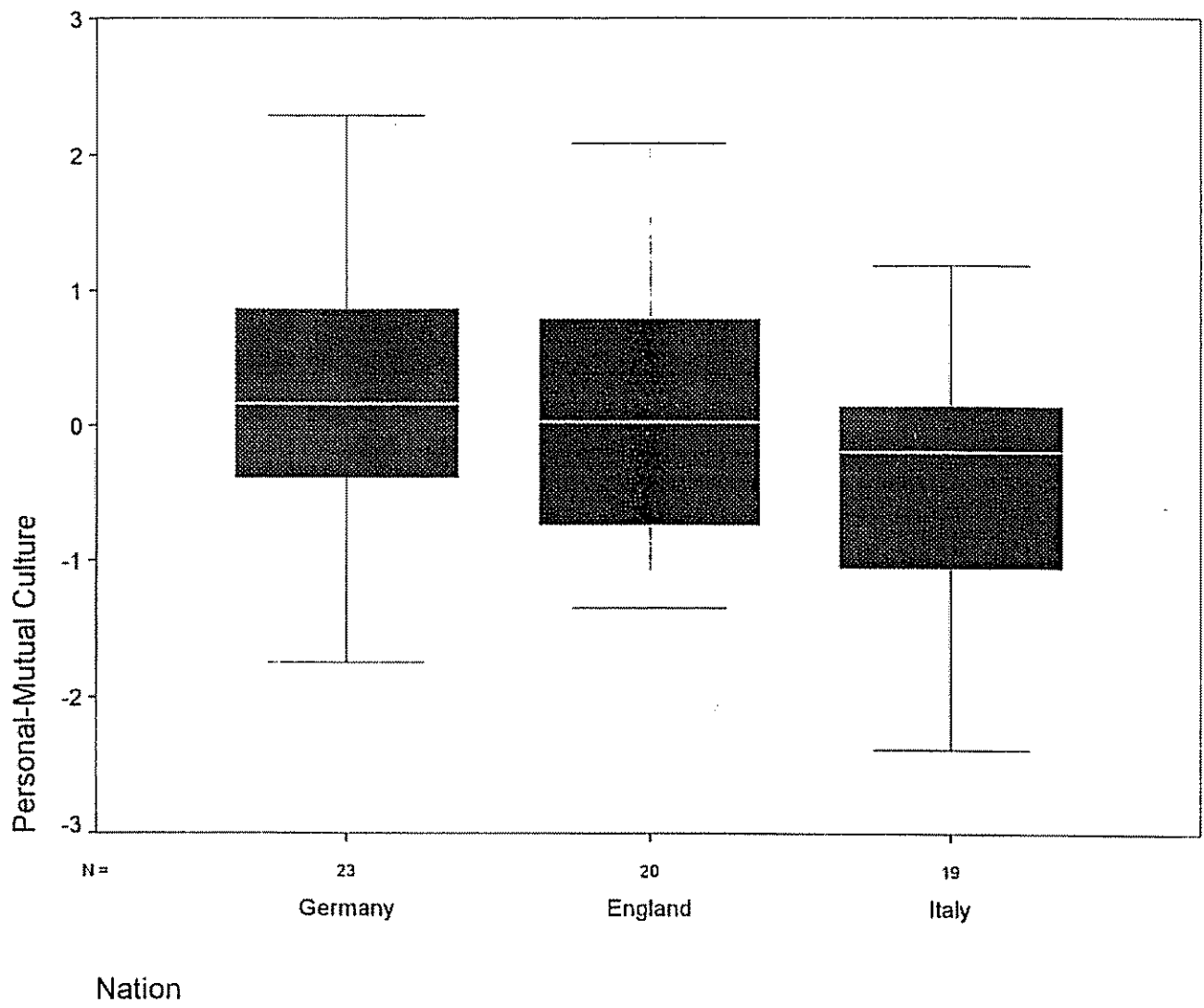


Figure 6



Nation

Figure 7



**Table 1: Meaning of trust in business relationships: Percentage of firms\***

	German	British	Italian	All
Favourable experience	21.7	10.0	66.7	31.1
Adhering to agreed terms	26.1	25.0	33.3	27.8
Adhering to behavioural norms	30.4	35.0		23.0
Active co-operation	8.7	10.0	5.6	8.2
Informal understandings	8.7	10.0	5.6	8.2
Nothing	8.7	10.0		6.6
Others	4.3	5.0		3.3
No. of responses	23	20	18	61

\* Sums to more than 100 because some firms gave more than one response.

**Table 2: Strategies used by firms to establish themselves as trustworthy: Percentage of firms \***

	German	British	Italian	All
Establish personal contracts	8.7	35.0	5.6	16.4
Create reputation for competence reliability and straight dealing	82.6	50.0	38.9	59.0
Co-operate and respond quickly	13.0	26.0	22.2	18.0
Establish long-term relationships	13.0	5.0	11.1	8.2
No strategy	13.0	10.0	27.7	16.4
No. of firms	23	20	18	61

\* Sums to more than 100 because some firms gave more than one response.

**Table 3: How firms decide to trust other firms: Percentage of firms\***

	German	British	Italian	All
Personal contacts	17.4	30.0	5.6	18.0
Instigate enquiries	39.1	30.0	11.1	27.9
Satisfaction with performance	21.7	25.0	44.4	29.5
Long term experience	42.5	40.0	33.3	39.3
Take action to avoid need to trust		10.0		3.3
Others	4.3		5.6	3.3
No. of firms	23	20	18	61

\* Sums to more than 100 because some firms gave more than one response.

**Table 4: Ways of dealing with firms which prove untrustworthy: Percentage of firms\***

	German	British	Italian	All
Terminate relations immediately	31.8	50.0	87.5	53.4
Terminate relationship if attempts to sort out differences fail	4.5	5.0		3.4
Limit exposure - withdraw information, etc.	9.1		6.2	5.2
Make contractual provision to cover risk	40.9	15.2		20.7
Make effort to sort out differences	13.6	25.0		13.8
Others		5.0	6.2	3.4
No. of firms	22	20	16	58

\* Sums to more than 100 because some firms gave more than one response.

**Table 5: The average scores for the types of actions associated with trust\***

Actions	German	British	Italian	All
Contract adherence	8.3	7.6	8.2	8.0
Flexibility outside contract	7.3	7.7	6.1	7.1
Flexibility beyond contract	6.7	5.8	6.1	6.2
All actions	7.6	7.2	7.0	7.3

\* Sums to more than 100 because some firms gave more than one response.

**Table 6: Average scores for types of actions associated with the development of trust**

Actions	German	British	Italian	All
Reputation for fair trading	7.8	7.3	8.9	8.0
Long term relationships	8.4	8.3	7.1	7.9
Collaborative relationships	5.2	4.2	4.6	4.7
Similarity of firm size	4.2	4.3	4.7	4.4
Similarity of firm size	3.2	2.6	3.7	3.2
Association membership	3.1	2.6	3.2	2.9

Table 7. Factor Analysis of Trust

Analysis 1. Actions associated with Trust.		
Factor Number	Description of Variables with high loadings on Factor	Loading (From Pattern Matrix)
1	<p>The importance of being prepared to give and take</p> <p>The importance of being willing to overlook occasional faults</p> <p>The importance of being ready to help in an emergency</p> <p>The importance of maintaining high product quality at all time</p>	<p>.88</p> <p>.84</p> <p>.69</p> <p>.56</p>
2	<p>The importance of honouring strictly the terms of contract</p> <p>The importance of ensuring the relevant standards are complied with</p> <p>The importance of paying and delivering on time</p> <p>The importance of preserving confidentiality</p>	<p>.89</p> <p>.74</p> <p>.63</p> <p>.53</p>
3	<p>The importance of being ready to renegotiate the terms of contract at any time</p> <p>The importance of being willing to exchange business information</p> <p>The importance of honouring informal understandings</p>	<p>.90</p> <p>.53</p> <p>.50</p>



<b>Analysis 2. Actions Associated with the Development of Trust</b>		
1	<p>The importance of exclusive trading relationships</p> <p>The importance of joint development of new production technology</p> <p>The importance marketing agreements</p> <p>The importance of joint product development</p> <p>The importance of mutual board memberships</p> <p>The importance of membership of the same professional association</p>	<p>.87</p> <p>.85</p> <p>.81</p> <p>.72</p> <p>.61</p> <p>.56</p>
2	<p>The importance of an established reputation for fair trading</p> <p>The importance of similarity of firm size</p> <p>The importance of membership of the same trade association</p>	<p>.74</p> <p>.67</p> <p>.53</p>
3	<p>The importance of similar enterprise culture</p> <p>The importance of long-term personal relationships</p> <p>The importance of long-term trading relationship between firms</p> <p>The importance of shared regional or national cultures</p>	<p>-.66</p> <p>.64</p> <p>.54</p> <p>-.53</p>

## Bibliography

- Arrighetti, A., Bachmann, R and Deakin, S. 1997, Contract Law, social norms and inter-firm cooperation. *Cambridge Journal of Economics*, Under Submission for Special Issue, Vol 21, No 2.
- Best, M. 1990. *The New Competition: Institutions of Industrial Restructuring*. Harvard University Press.
- Brusco, S. 1992, Small firms and the provision of real services, in Pyke, F. and Sengenberger, W. (ed) *Industrial Districts and Local Economic Regeneration*, Geneva, International Institute for Labour Studies.
- Coase, R.H. 1937. 'The nature of the firm'. *Economica*, vol. 4, 386-405. Reprinted in Coase, *The Firm, the Market and the Law*, 1988, Chicago: University of Chicago Press
- Coleman, J. 1990. *Foundations of Social Theory*. Cambridge M.A., Harvard University Press.
- Collins Concise Dictionary*, 1995, London, Harper Collins.
- Dasgupta, P. 1988. 'Trust as a commodity'. in, Gambetta, D (ed) *Trust: Making and Breaking Cooperative Relations*. Oxford: Blackwell.
- Deakin, S., Lane C. and Wilkinson, F. 1993. 'Competition and cooperation in vertical contracts: an inter-disciplinary framework', in V. Corado Simoes (ed.) *International Business and Europe after 1992 Proceedings of the 19th Annual EIBA Conference*, Lisbon: CEDE.
- Deakin, S., Lane C. and Wilkinson, F. 1994. "'Trust" or law? Towards an integrated theory of contractual relations between firms', *Journal of Law and Society* vol. 21, 329-349
- Dei Ottati, G. 1994 Cooperation and Competition in the Industrial Districts as an organisational model. *European Planning Studies*, Vol 2, No. 4, pp.463-483.

- Gambetta, D. 1988. *Trust: Making and Breaking Cooperative Relations*. Oxford: Blackwell.
- Kreps, D. 1990. 'Corporate culture and economic theory'. In Alt, J. and Shepsle, K. (eds.) *Perspectives on Positive Political Economy*, Cambridge,
- Lane, C. 1997 The social regulation of inter-firm relations in Britain and Germany: The role of technical standards. *Cambridge Journal of Economics*, Under Submission for special issue, Vol 21, No 2.
- Lane, C. and Bachmann, B. *Cooperation in Vertical Inter-Firm Relationships in Britain and Germany: the Role of Social Institutions*. University of Cambridge, ESCR Centre for Business Research, Working Paper, 21.
- Lane, C. and Bachmann, R. 1996. The social construction of trust: supplier relations in Britain and Germany. *Organisation Studies*, Vol. 17, No. 3 (forthcoming).
- Loasby, B. 1994. 'Organisational capabilities and inter-firm relations'. *Metroeconomica* vol. 45, 2499-265.
- Lorenz, E. 1988. 'Neither friends nor strangers: informal networks of subcontracting in French engineering'. In D. Gambetta (ed.) *Trust: Making and Breaking Co-Operative Relations*. Oxford: Blackwell.
- Luhmann, N. 1979. *Trust and Power*. Chichester, Wiley.
- Lyons, B. and Mehta, J. 1994 *Contracts, Opportunism and Trust*. Working Paper, School of Economic and Social Studies, University of East Anglia.
- Marsh, C. 1988. *Exploring Data*. Oxford: Polity Press.
- Powell, W. 1990. 'Neither market nor hierarchy: network forms of organisation'. *Research in Organisational Behaviour*, vol. 12, 295-336

- Sako, M. 1992. *Prices, Quality and Trust: Inter-Firm Relations in Britain and Japan*. Cambridge University Press
- Tarling, R. and Wilkinson, F., 1987. 'The level, structure and flexibility of costs'. In Tarling, R. and Wilkinson, F. (eds.), *Flexibility in Labour Markets*. Academic Press.
- Wilkinson, F. 1983. 'Productive systems'. *Cambridge Journal of Economics* vol 7, pp.413-429.
- Wilkinson, F. and You, J.-I. 1994. 'Competition and cooperation: toward understanding industrial districts' *Review of Political Economy* vol. 6, 259-278
- Williamson, O. 1993. 'Calculativeness, trust and economic organisation'. *Journal of Law and Economics* vol. 36, 453-486
- Zucker, L. 1986. 'Production of trust: institutional sources of economic structure 1840-1920' *Research in Organisational Behaviour*, Vol. 6, pp.53-111.