



# Accounting, contracts and trust in supply relationships

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## Abstract

**Purpose** – The paper investigates the operation of the trust-formal control dynamic in collaborative supply relationships.

**Design/methodology/approach** – A case study of an Australian metal manufacturer (IronBiz) and its collaborative supply relationships is conducted.

**Findings** – Relationships between formal controls (comprising accounting controls and contracts) and trust are developed based on the empirical observations from the case study conducted and prior literature.

**Research limitations/implications** – The main limitations of the paper include: an empirical examination of the buyer organisation only in dyadic supply relationships; the limited generalisability associated with the methodology and field site chosen.

**Originality/value** – In contrast to the continued popularity of collaborative arrangements as a form of organisation, gaps in the literature still exist as to the dynamics of trust creation and the relationship between trust and formal controls. This paper focuses on the trust-formal control dynamic, with an emphasis on how trust is generated and sustained in supply relationships and the role of formal controls in this process.

**Keywords** Trust, Accounting, Contracts, Supplier relations

**Paper type** Research paper

## 1. Introduction

Collaborative inter-organisational arrangements continue to be popular organisational forms, widely promoted as a means of sustaining competitive advantage through: enhancing efficiencies; sharing the costs and risks of innovation; and, accessing new markets, resources and capabilities (Castells, 2000; Adobor, 2005). Amongst such arrangements, collaborative supply relationships are popular, with both the scope and depth of services and products increasing globally. Estimates of outsourcing industry size and growth vary, but include predictions of total global IT Outsource (ITO) value of \$US200 billion by end 2005 and global demand for Business Process Outsource (BPO) services of approximately \$US173 billion by end 2007 (Gartner Inc., 2004). Within Australia, BPO spending is expected to expand at a cumulative annual growth rate of 11.4 per cent (IDC Australia, 2005). However, there is also evidence of collaboration failure (Langfield-Smith and Smith, 2003; Dekker, 2004), raising concerns about how these inter-organisational relationships should be controlled and managed.

Despite a significant amount of research on the topic, a number of gaps in the literature remain. Firstly, the mechanisms that produce trust are insufficiently understood, and there have been calls for more attention to the dynamics of trust creation (Adobor, 2005). Thus, “an important question is how over time the evolution of trust influences the governance structure and in particular the use of formal control mechanisms” (Dekker, 2004, p. 47). Secondly, despite both accounting and contracts forming part of the formal control mechanisms that parties can employ to govern



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inter-organisational relationships, there has been little research that has simultaneously examined both. This is especially problematic given the convergence of these mechanisms in practice, a prime example being the growing practice of developing key performance indicators and service level agreements, and incorporating these either in the contract document proper, or in schedules to contractual documentation.

Thus, the focus of this paper is on explicating the trust-formal control dynamic, with specific areas to be examined comprising:

- the relationships between contracts, trust types and trust producing mechanisms; and
- the relationships between accounting controls, trust types and trust producing mechanisms.

The paper presents empirical evidence on how the trust-formal control dynamic manifested in a collaborative supply relationship operated by a large Australian metal manufacturer (labelled “IronBiz”). Interpreting this data within a framework of trust types (Sako, 1992) and trust-producing mechanisms (Zucker, 1986) subsequently enables the generation of a series of propositions relating to the trust-formal control nexus and how this might operate over time in collaborative arrangements.

The next section of the paper provides an overview of prior literature on control mechanisms in collaborative relationships and the trust construct, contracts and accounting controls, respectively. The Section 3 of the paper introduces the IronBiz research site and the research methods utilised for the case study. The ensuing empirical observations are presented in section four of the paper while the concluding section discusses the empirical results obtained in light of the preceding literature review, and develops a series of propositions relating to the trust-formal control relationship. It also articulates the contributions of the paper and its implications for both practice and future research.

## **2. Controls in collaborative relationships**

Variously labelled “networks” “partnerships” or “alliances” collaborative inter-organisational relationships have been typically situated as an organisational alternative located between the ideal types of markets and hierarchies (Williamson, 1985; Powell, 1990; Ring and Van de Ven, 1992). In such arrangements, transactions occur neither through discrete exchanges nor by administrative fiat, but through relations between participants engaged in reciprocal, preferential, mutually supportive actions (Powell, 1990). As such, a mix of controls have been described as applying to these “hybrids” and collaborations with suppliers (Cuganesan *et al.*, 1999). Those of interest to this paper – specifically, trust and formal controls comprising contracts and accounting controls – are discussed in turn below.

### *2.1 The nature of trust*

Trust is commonly described as comprising positive expectations about the intention or behaviour of other parties in situations of risk or vulnerability (Zucker, 1986) and as an uncertainty reduction mechanism (Tomkins, 2001). In this paper, trust is conceived of as a calculative process. Specifically, the calculation that takes place in decisions to trust is socially based, derived in part from background information about the other

party to the exchange and the relationship as it has been enacted to that point in time. In so doing, the paper follows Gambetta (1988, p. 217), who concludes that “trust . . . is a particular level of the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action”. Extending the conceptualisation of trust as a calculative process, typologies of both trust types and trust producing mechanisms have been developed in the extant literature. These are discussed in turn below.

Numerous dimensions of the trust construct have been utilised by prior studies. Of these, the most common have been drawn from Sako (1992), who identifies three types of trust: contractual trust, competence trust and goodwill trust. Contractual trust involves expectations that the other party will honour oral and/or written agreements entered into. It is embedded in the broader moral and ethical standards that support transactions (van der Meer-Kooistra and Vosselman, 2000). In contrast, competence trust involves expectations that the other party possesses the skills and ability to perform any tasks assigned to it. Thus, Sako (1992) offers the example of a supplier failing to deliver on time. Misplaced contractual trust is consistent with the supplier entering into the arrangement knowing that it lacked the capacity to fulfil the order in a timely fashion. In contrast, misplaced competence trust may have occurred if the delay was due to an unanticipated machine breakdown due to poor production control.

Goodwill trust involves expectations of open commitment. It does not comprise explicit promises to be fulfilled or standards to be maintained. Rather, it involves “expectations that trading partners are committed to take initiatives (or exercise discretion) to exploit new opportunities over and above what was explicitly promised” (Sako, 1992, p. 39). Comparing the different trust types, both contractual and goodwill trust suggest the absence of opportunistic behaviour, although what comprises opportunistic behaviour is driven from the explicit agreement and implicit open-ended commitment, respectively. Furthermore, goodwill trust is contextual and emergent, dependent on the norms of reciprocity and behaviour that emerge through repeated interactions in both past and expected future exchanges. In contrast, contractual and competence trust can also be intentionally sought through careful partner selection and inquiry into background, reputation and past achievements. In this manner, different trust producing mechanisms are available to relationship participants.

A useful characterisation of the different trust producing mechanisms is that of Zucker (1986). According to Zucker (1986), trust can be generated by three types of mechanisms. These are character-, process- and institutional-based. The author argues that the operation of each of these mechanisms depends on the types and amounts of information available about the proposed exchange. Character-based trust relies on ascribed characteristics such as background and attributes of the entity in question. They also provide a basis from which predictions can be made of how entities with certain ascribed characteristics will behave in specific situations. Process-based trust depends on past and expected future exchanges and transactions. As time passes, norms of reciprocity and behaviour emerge through the repeated interactions amongst a group of economic exchange participants that provide common expectations on which the exchange is founded. In relation to institutional-based trust, trust is embedded in institutional practices that themselves are accepted as “social facts” and not often open to question. Trust results from common expectations, which in turn are generated from institutional practices that are largely taken for granted by society.

Hence, in contrast to process- and character-trust, institutional-based trust depends less on the specifics of the particular exchange and exchange participants.

In summary, inter-organisational trust comprises three types: contractual, competence and goodwill trust. Furthermore, trust can be generated from organisational identity and reputation (character-based), recurrent transactions and experience (process-based) or tied to formal social structures and taken-for-granted institutions (institutional-based). Integrating these two categories, one can align character-based mechanisms to initial expectations about the other parties' capabilities (competence trust) and capacity to complete the contract (contractual trust). Similarly, process-based mechanisms can reinforce or destabilise competence and contractual trust while also leading to the emergence of relationship-specific norms of open commitment (goodwill trust). Finally, institutional-based trust mechanisms support all forms of economic exchange as they shape background expectations common to different forms of economic organisation. In this manner, institutional-based trust mechanisms can have indirect consequences for contractual and competence trust types derived from broader institutionalised symbols and practices but less so for goodwill trust which is emergent and relationship specific. These relationships are summarised in Table I.

Given this calculative notion of trust, one can then usefully consider the nexus with formal controls comprising contracts and accounting, and the role that these mechanisms play in collaborative arrangements.

## 2.2 Formal controls

**2.2.1 Contracts.** Contracts specify the terms and arrangements for carrying out economic exchange. The contract "refers to a formal written contract between two or more competent parties, which creates obligations, whereby one party becomes bound to another to do or omit to do certain acts that are the subject of that contract" (Blomqvist *et al.*, 2005, p. 498). Thus, contracts provide the "frame" for the economic exchange, outlining the nature and term of the relationship, what is to be provided and the rights and obligations of parties to the contract.

In addition to specifying the nature and rules of exchange, contracts also fulfil another important role in minimising potential opportunistic behaviour. This can occur through *ex ante* mechanisms that bind the parties together, such as requiring parties to undertake transaction-specific investments or credible commitments to the relationship (Williamson, 1983). Alternatively, *ex post* mechanisms may be incorporated which provide parties with rights and sanctions over others in the event

Trust producing mechanisms	Trust types		
	Contractual	Competence	Goodwill
Character-based	Influences initial levels	Influences initial levels	
Process-based	Recalibrates initial levels	Recalibrates initial levels	Influences emergence over time
Institutional-based	Indirect impact through providing background expectations		

**Table I.**  
Trust types and  
producing mechanisms

of non-performance or other pre-specified situations. Thus, contracts involve parties binding themselves to carry out the actions necessary to achieve the goals of the contract. Finally, both the body of contract law and the courts of law that underpin contracts provide an avenue for contract parties to seek external dispute resolution should parties not honour their contractual agreement.

Despite affording the above benefits, contracting becomes increasingly problematic in collaborative arrangements. Given both the bounded rationality of parties and possibilities of opportunism, the costs of both describing possible future states of the economic exchange in the contract, and verifying realised *ex post* states leads to incomplete contracting (Williamson, 1985). In the face of contracting gaps and uncertainties, contracts are often either incomplete or overly rigid. While the contract is advantageous in that the institution of “contracts” is generalisable throughout the economy, readily available and understood by the parties to the relationship, and is supported by the possibility of legal action, its lack of flexibility is seen as a major disadvantage, especially when partner roles and obligations change or emerge over time (Borys and Jemison, 1989).

*2.2.2 Accounting controls.* Accounting controls as a subset of formal control mechanisms can take the form of outcome controls and behaviour controls, whereby the behaviours or the outcomes of these behaviours are, respectively, measured (Ouchi, 1979). Behaviour controls in inter-organisational relationships both specify how the partners should act and monitor whether actual behaviour is in accordance with pre-specified requirements. Examples of behaviour controls include: planning, defining rules and regulations, developing standard operating procedures and dispute resolution procedures. In contrast, outcome control mechanisms specify results to be realised by the relationship and monitor the achievement of these targets. Importantly, both of these have *ex ante* and *ex post* influences, with the process of specification and implementation reducing goal divergence amongst exchange partners at the start of the relationship, and the monitoring of behaviours and outcomes coupled with reward provision acting to provide information about compliance with these controls and helping to mitigate unresolved control problems (Dekker, 2004).

### *2.3 The trust-formal control relationship*

The relationship between trust and formal controls is complex and much debated; specifically, whether and the extent to which formal controls are complementary or substitutive. The substitutive perspective is well summarised by Tomkins (2001, p. 166):

If, on the other hand, there is little trust, but one still wishes to deal with the other party, there will be the need for more complete information about plans (what the other party intends to do, processes (how it is proposed to do it) and results (desired or unexpected ends obtained) coupled with appropriate sanctions for inappropriate behaviour. This . . . will incur higher agency costs and may have further disadvantages in terms of inhibiting creativity and developing new capabilities.

Accordingly, the substitutive perspective implies an inverse relationship between formal controls and trust, where “when it is possible to fully trust a partner, there is no need to control its behaviour. Control comes into play only when adequate trust is not present” (Das and Teng, 1998, p. 495; Ring and Van de Ven, 1994; Madhok, 1995; Ghoshal and Moran, 1996). By contrast, complementary perspectives on the

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trust-formal control dynamic see each as enhancing the other in the governance of collaborative arrangements (Dekker, 2004). Here, “well-specified contracts narrow the domain and severity of risk to which an exchange is exposed and thereby encourage cooperation and trust” (Poppo and Zenger, 2002, p. 708) while trust also allows the limitations of incomplete contracts to be overcome.

More complex representations of the trust-formal control dynamic have been advanced in recent times. In explaining how formal controls such as accounting can have both positive and negative effects for trust, Tomkins (2001) argues that the relationship between trust and “information” is an inverse U-shaped function rather than monotonic and inverse. Similarly, Dekker (2004) argues for a nonlinear relationship between trust and formal controls, which are complementary until a certain “safety” threshold is reached given the associated risks, and substitutive thereafter. While representing first steps towards recognising the complexity of the trust-formal control dynamic, both perspectives are deficient in some regards. Tomkins (2001) assumes trust is a singular concept, overlooking its various dimensions, while Dekker (2004) sees trust as moderating the relationship between formal controls and appropriation concerns and coordination needs and does not consider the possibility that formal controls can influence trust directly. Furthermore, both of these do not describe the trust-formal control relationship in terms of the various trust producing mechanisms as identified previously. Thus, the trust-formal control relationships depicted in these studies overlooks much of its inherent complexity.

Hence, the objective of this study is to empirically examine the relationship between individual trust types, trust producing mechanisms and formal controls. Two specific research questions (RQs) of this study are:

- RQ1.* How are contracts, trust types and trust producing mechanisms related in collaborative supply relationships?
- RQ2.* How are accounting controls, trust types and trust producing mechanisms related in collaborative supply relationships?

The next sections of this paper present empirical evidence from a case study conducted at IronBiz, specifically examining the trust-formal control dynamic (comprising both contracts and accounting) and how this changed over time. The research site and method are discussed first followed by a presentation of the case study findings.

### 3. Research site and method

“IronBiz” is an Australian metal manufacturer that produces aluminium products such as plates, sheet and foils. It is part of a broader group of companies that is fully integrated, encompassing mining bauxite, refining bauxite to alumina, smelting alumina to aluminium metal, processing aluminium and producing various related products, and, recycling aluminium. IronBiz is positioned towards the end of this value chain and comprised approximately 500 employees, total assets of approximately \$175 million and achieved sales of approximately \$200 million at the time of this study[1].

Increasing competition and lower prices for finished goods, together with rising input costs during the early 1990s resulted in financial losses being reported by IronBiz[2]. As a result, pressures emerged at IronBiz to reduce costs and improve production volume (to help offset reduced gross margins), the latter in turn requiring performance improvements on dimensions such as cycle-time. Initially centred on the manufacturing processes, efforts directed at these improvement objectives soon spread upstream to the supply area, where it was argued that building stronger relationships with a small number of suppliers would lead to several benefits. These included reduced complexity in supply, greater integration of the supplier's knowledge and expertise in organisational processes, and more efficient processes, resulting overall in reduced costs and improved performance. As the IronBiz Manager – Supply reflected:

We were looking at the number of suppliers that we had and we came across groups that had at least 3,000 suppliers. We had a range of products in the store. Some of it hadn't moved for 20 years plus. We didn't know the state of the product. So what we really had to do was to make an assessment of our stock levels [and] make an assessment of our supplier base. It was a very complex process. We got involved in saying we have got to make it simpler. We have got to cut out all this complexity and we have got to sit down with suppliers and with our own internal customers. This is absolutely ridiculous. This is adding so much cost to the business ... How do we simplify it? Then we started saying one way of simplifying it is to reduce your number of suppliers.

Focusing first on those inputs which were most costly and important to their underlying business, IronBiz embarked on an active programme of supplier rationalisation, forming closer linkages with a reduced number of suppliers. In addition, activities and functions previously performed in-house were outsourced to these “preferred” suppliers, with longer-term supplier relations being implemented across warehousing operations, transport provision, engineering services, equipment and process maintenance, metals processing and waste processing. Significant changes in the supply chain manifested as a result. Important organisational personnel in the process of reconfiguring the supply chain were the manager – supply, who was in charge of the supply function and all supply relationships, and the General Manager – Services, whose direct reports included the manager – supply and who had been particularly important in implementing collaborative supply relationships at IronBiz.

The period of research spanned eight months in total, commencing in mid-1995 and ending in March 1996. Multiple data-collection methods were used in order to “triangulate” data sources and stabilise the interpretation of observations, both historic and contemporary. Firstly, 16 interviews were conducted that consisted of two types. The first type of interview was formal, semi-structured and tape-recorded. These interviews usually lasted one hour although two interviews lasted longer than this. The second type of interview was informal, not recorded by tape and was of 45 minutes to an hour in duration. This type of interview was held in circumstances where it was considered that an informal interview would not compromise the accuracy of the interview data and would be more convenient or where it was felt that if a formal interview was held the interviewee would not be as forthcoming in their discussions.

Interviewees were selected on the basis of their involvement in the selection of suppliers and the management and control of collaborative supply relations. At IronBiz, those interviewed comprised purchasing officers involved in day-to-day

dealings with suppliers and the previously mentioned Manager – Supply and General Manager – Services. Other interviewees included operational personnel, management accountants and the IronBiz Contract Negotiations Manager, who was to become responsible for the formalisation and implementation of performance-based service contracts in supply relationships.

A second important source of data collection was *in situ* observation. A total of 45 days were spent at IronBiz that involved actual data collection through observation of participants, attendance at meetings between IronBiz personnel and with supplier representatives, and “ad hoc” encounters where follow-up questions and issues were discussed with participants. Indeed, the use of *in situ* observation enabled the collection of rich data outside of interviews as well as corroborating and validating interview discussions. Finally, documentation comprising memos, internal papers and presentations, and communications with suppliers were made available by the organisation. Table II presents an overview of the data collection process, with the empirical evidence from the case study presented in the next section.

#### 4. The IronBiz case

##### 4.1 Character- and institutional-based mechanisms to calculate contractual and competence trust

Prior to the development of collaborative supply relationships at IronBiz, suppliers were chosen on the basis of the price charged, with the lowest-priced supplier being selected. The identity of the supplier and possible future exchanges had little bearing on the selection decision, indicative of the isolated and discrete nature of such transactions. Managing supply relationships, however, required a different approach. Supply personnel emphasised the importance of relationships and trust. A Purchasing Officer at IronBiz explained:

My role has changed in that before it was adversarial, you would obtain three price quotes from suppliers and then select the supplier purely on lowest price. Nowadays you try and build relationships. You need to have a continuing relationship with a supplier, with a key thing being trust. Then you ask the supplier if he can reduce the total costs to the business, the emphasis is on total costs. By total costs I mean not just the cost of providing the goods and services but also the costs associated with quality, delivery and so on.

Also, as indicated above, suppliers in these longer-term relationships were required to reduce “total cost” instead of merely supplying the lowest-priced product or service. The notion of “total cost” comprises tangible and intangible costs associated with the supplier, both at the time of the exchange and in the future. The terms of the supplier exchange were thus broader and less clearly defined, shifting from the provision of a specific good or service to comprise more intangible elements as indicated by the IronBiz Manager – Supply:

Research design element	Details
Formal interview	4
Informal interviews	12
Meetings attended	13
<i>In-situ</i> observation	45 days

**Table II.**  
Research design

Once these suppliers understand our business we can then say, “We can only have one supplier and it’s going to be built very much around the total cost concept and your ability to work with us to lower our total costs. The total cost is very much price [and] the quality of the product. It’s your ability to work on improvement programs. It’s your ability to get on with the people on site. It’s your safety”.

At IronBiz, trust was seen as important for managing these collaborative and broad-ranging exchanges, enabling the flexibility required from suppliers. IronBiz purchasing officers saw their role in the organisation as adding value through the creation of trust, open communications and long-term relationships with suppliers. Central to their discussion was the perception that:

You need to have a continuing relationship with a supplier, with a key thing being trust.

Similarly, when asked what lessons he had learnt over his tenure, a Purchasing Officer at IronBiz commented on the key role that trust fulfilled:

I think the most critical thing I have learnt is relationships. Relationships and trust. These are probably the most two critical things. The ability to trust and work with the supplier so that they can help you improve your business.

However, trusting suppliers was not a “leap of faith”. Detailed steps for selecting partners for collaborative supply relationships had been specified and documented in a supply department handbook. These required IronBiz personnel to engage in extensive calculative acts in formulating expectations of a supplier’s intentions and ability to discharge obligations entered into (contractual and competence trust, respectively).

For example, the first six characteristics in a list of preferred supplier evaluation measures at IronBiz required a form of social calculation, whereby each member of the supplier selection team (this usually comprised the manager – supply, a purchasing officer and, on occasion, a representative from the relevant operational area of IronBiz) would subjectively assess aspects of the supplier’s “character”. Three measures required the evaluation of the supplier’s “company ethos, vision, goals” “openness” and “open communications”. These were aimed at capturing elements of the supplier’s organisational culture. “Company stability” and whether the supplier was “happy to integrate business” were also assessed in an attempt to reflect, respectively, the temporal consistency of the supplier and its organisational culture, and the supplier’s interest in creating a long-term relationship. The individual ratings were then used by the supplier selection team as a basis for discussion and the reaching of inter-subjective agreement as to the preferred supplier (the supplier with the highest agreed aggregate rating) with whom the collaborative supply relationship would be commenced. To aid in the subjective evaluation of suppliers, the supplier selection team also made visits to supplier facilities and conducted discussions with other clients of the suppliers who acted as “referees”[3]. The participation of the supplier in industry associations and possession of International Organisation for Standardisation (ISO) accreditation were also evaluated in decisions about supplier selection. There was thus a process to enable the formation of expectations about the supplier’s likely behaviour in relation to contracts and their future performance.

The evaluation of the supplier in the above manner reveals the cognitive actions that underlie decisions to trust, particularly in regard to contractual and competence trust. The General Manager – Services expanded on the social nature and extent of calculation that was required before decisions to trust could be made:

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A lot of suppliers say, “Yes, we are switched on to that” but it’s not until you get them on site that you find out that they are not. You have got to look very much at who you are dealing with. When you are talking to a lot of these suppliers you have to make sure the top level of the [supplier] organisation is switched on, that they have got the right culture, the same culture as you. That’s where it takes a lot of work. You have really got to make sure that you have got the right people and you have got the right [supplier] organisation. You have really got to spend the time evaluating that organisation.

Assessing the supplier’s character and ensuring the “right culture, the same culture as you” were thus important for IronBiz in terms of creating and sustaining collaborative arrangements. Indeed, a matching of organisational cultures implies similar expectations in exchange partners and a greater ability to trust (Dekker, 2004). For IronBiz, ensuring that the preferred supplier was “switched on” meant that it could be relied upon and trusted to deliver the required products and services in the more flexible environment of the collaborative supply relationship.

Correspondingly, there was a relative absence of formal contracts and performance measurement systems across IronBiz supply relationships during its initial phases. Although, broad “supply agreements” existed, these did not prescribe or proscribe specific supplier behaviours or explicitly detail expectations. Indeed, these were seen as unnecessary by the General Manager – Services given both IronBiz’s reliance on trust and the perceived negative impact of contracts on the relationship and trust:

We never had in place any contractual arrangements. A lot of this is built around trust, trust being very much one of the core drivers. You can become far too legalistic in a lot of areas and you just don’t have that trust and flexibility because what is built-in in a lot of these contractual arrangements is that you want to dot every “I” and cross every “T” which signals that we don’t really trust you guys. You should have a loose form of charter which is just a working paper on how the customer and supplier work together.

The General Manager – Service’s comments reflected the sentiments of the IronBiz supply function that was responsible for creating and managing supply relationships. The Manager – Supply added in relation to the “supply agreements” in place:

There is a view out there that, yes, you should have a document in place which sets out the legal side of it but, on the other hand, you should have a loose form of charter which is just a working paper on how customer and supplier work together . . . when you turn around and you say, ‘Is that really going to be binding at law?’ that’s where the difficulty comes in if you really want to work properly with some of these suppliers. We haven’t got a lot of those really tight contractual arrangements.

Overall, contracts were seen as restricting the broader and more intangible terms of exchange with suppliers.

In addition, accounting controls were rarely used. Consistent with their emphasis on trust, supply personnel at IronBiz felt that accounting controls in supply relationships were redundant, resulting in paperwork and other “non value-adding activities”. The Manager – Supply expanded:

We don’t measure supply performance such as delivery because we haven’t got any receiving mechanism in place. We have taken that cost out. What we can do is we can turn around and say across the site, “Whenever you receive anything from our consumables supplier, go to a terminal, sit down and identify the time and the date that you received it.” That has then got to be measured with the order. That’s a cost to us because that is resource hungry.

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Indeed, in relation to IronBiz Supply, the role of the accounting function was peripheral, limited to the provision of costing information when requested. According to the Senior Management Accountant at IronBiz:

No, we're [the management accountants] not involved with the actual selection [of suppliers]. The only thing I can think of would be, in the purchasing area, is we often put together different cost information if they're looking at outsourcing something. We would generally put together the internal costings.

Thus, the mechanisms relied upon by IronBiz to manage its supplier relationships emphasised trust. Character-based trust mechanisms were employed that required social calculations and enabled assessments of contractual and competence trust such that it could be utilised as an uncertainty reduction mechanism. Furthermore, institutional-based mechanisms also served as a basis for the formulation of expectations in the pre-commencement phase of the relationship. One example of this at IronBiz was the use that supply personnel made of quality accreditation, such as the various ISO pronouncements, to form expectations about the standard of processes, products and services at the supplier organisation (that is, competence trust). Importantly, the use of trust in this manner was seen as preserving the flexibility and collaboration required of the supply relationship, attributes that would be impinged upon if more formal controls such as contracts and accounting controls were to be used. This view was to change over time at IronBiz.

#### *4.2 Trust and the influence of process-based mechanisms*

Over time, levels of trust in suppliers at IronBiz became influenced by process-based mechanisms, as repeated interactions with suppliers began to influence initial expectations formed through character-based mechanisms. In a few cases, process-based mechanisms not only confirmed these initial expectations but led to the emergence of open-commitment and goodwill trust. An example of this, often cited by IronBiz supply personnel, involved the supplier of gas. The Manager – Supply explained how the supplier had helped improve IronBiz's processes despite this not being explicitly stipulated in the contract and, furthermore, despite the suggested improvements reducing the amount of gas that IronBiz would purchase from the supplier:

With the gas supplier, we had a very good relationship with them. They maintain a number of our processes that we have in place, our pieces of equipment. They said, "Great. You are using a lot of nitrogen. The problem is it's just going into the atmosphere because you have got so many holes in your piping that you are wasting 20% or 30% of the nitrogen that you are using." We rectified all those problems [that the supplier identified]. We have cut down on the amount of usage and we have cut down on costs and that's a very good relationship with our gas supplier.

Another supply relationship that was regarded positively was the supplier of inventory, who had become a source of expertise and knowledge at IronBiz. Commenting on this, the Manager – Supply explained:

We have got to the stage now where we have a representative from the supplier on site who actually sits around there. He is on site full time. He takes a lot of the work off our engineering guys because if our engineering guys are looking at a project they would then go and try to suss out who our supplier would be for that particular area. Now what they do is they give the

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supplier guy a ring [phone call]. He goes over there and he manages that side of it for them. He then says, "This is what you want. I know who looks after the different types of valves, the different types of hydraulics, water pumps, what have you." He looks after that side. He works in with our engineers and he sources all our suppliers and they supply the goods and what have you. Bearing in mind that a lot of our equipment on this site has been imported, with unique pieces of equipment or parts within that major unit, our purchasing officer would be getting phone calls and saying "Where am I going to get this from?" We imported this piece of equipment from Romania. But now that is all handled by this guy from our supplier.

However, in the majority of relationships, repeated interactions with suppliers began to disconfirm initial expectations. Widespread perceptions of supplier opportunism and growing anecdotal evidence resulted in a view that more formalised control mechanisms were needed. For example, in contrast to his earlier view emphasising the role of trust, the General Manager – Services now acknowledged the importance of formal controls. For the General Manager – Services, the changes occurring at IronBiz was akin to a pendulum, ranging from the tightly-specified price-based supplier interactions that had characterised IronBiz historically, to a more broader and open relationship as part of developing collaborative supply arrangements, and was now shifting back again to a situation where "everyone works within rules". He commented:

In some ways, the pendulum went from fully disciplined, rigid, rigorous audits where people had no room to move, to open, loose, freedom, right? In life, you don't have the second situation in anything you do. I mean, everyone works within rules. What you mustn't do is stifle people by having rules too rigid in the contract. What we're saying is that there is a level of contract which you must have in place.

In response to concerns about supply relationships, the General Manager – Services created a "Contract Negotiations Manager" position reporting directly to him. The role was responsible for the formalisation and implementation of performance-based service contracts in all supply relationships, and was to commence with the impending outsourcing of forklift maintenance and the creation of a close and collaborative relationship with the selected supplier. Having conducted a review of IronBiz's supply relationships, the Contracts Negotiations Manager was more specific in referring to examples of supplier opportunism:

With our transport company, we're aware of the fact that there really isn't much in the way of performance measures, performance data gathered, so we really don't know on a per tonne moved or per tonne truck mile or for straight dollars per tonne, we don't know what we're being charged for domestic freight versus what's available to competitors. There is anecdotal evidence from people involved in the freight operation that we shouldn't be getting charged "X" dollars for trucking one small computer here but it's difficult to react to individual incidents.

Oh, and [engineering services supplier] is another one. Operations people look at the rates structure that we've set up with our supplier and they're basically saying "that's double or not quite double but 50per cent more than what I could get for it in the shop down the road.

Importantly, the exclusive reliance on trust mechanisms to manage their supply relationships meant that, rather than having "hard calculations" about supplier performance, IronBiz only had anecdotes and perceptions produced through repeated

exchanges with suppliers. As these disconfirmed IronBiz's initial expectations about its suppliers, alternative control and uncertainty reduction mechanisms were sought and, in particular, the "objective" information on supplier performance that would be produced by accounting controls. The Contract Negotiations Manager best summed up the low level of trust and the subsequent need for "accounting controls":

We believe that because of the fact that we don't have clear performance measures in some of our really major contracts, because of the fact that we don't have benchmarks on those performance measures with those suppliers, we believe that we are being burned in an ongoing way. Not in a fraudulent way but in a way in which our costs are probably significantly higher than what they could be if you were to do a tighter job of managing suppliers against performance measures which would be benchmarked with their competitors.

Overall, the Contract Negotiations Manager saw a need for both formal controls and trust in supply relationships. Process-based mechanisms that utilised soft calculations (comprising perceptions and anecdotes) were recalibrating initial trust levels downwards. As such, harder accounting calculations were required, such as \$ per tonne truck mile for the transport supplier as suggested by the Contract Negotiation Manager (see previous comments in relation to this supplier), or breakdown response time as would be introduced for the preferred forklift maintenance supplier (discussed later in the paper). These accounting controls would enable more rigorous assessments of whether suppliers were discharging their contractual obligations and their competencies in so doing. In this way, they would help IronBiz by providing more rigorous information on how each party was performing in the relationship:

I think the thing you can't forget is that we talk about trust and partnerships and mutual gain and all that kind of stuff between providers and customers but we can't forget that it is a business relationship. They're in business, among other things, to make money; we're in business, among other things, to make money . . . So I think you need to have enough control systems in place that you start with the assumption that the supplier is trustworthy and they are going to provide a type of service that you want at a fair price . . . There should be in any contract an agreement about how the customer will know if the supplier is doing a good job, and conversely, how the supplier will know that the customer is giving them what they need in order to do that sort of job.

Indeed, these perceptions were not restricted to any particular group of organisational participants within IronBiz. Throughout the organisation, concerns about suppliers were routinely expressed. For example, an administrative staff member claimed:

We had more control over what we spend and the quality, now no one checks the quality and the costs. It is just accepted as correct. This principle of single suppliers does not work.

While comments by an IronBiz Management Accountant also reflected this view:

You really should have regular performance reviews with your suppliers to ensure that they're meeting their standards . . . I have some questions about our existing suppliers. We need a process of review, we need a performance monitoring system which traces costs, quality, on-time delivery, sort of saying to them "once you're selected you're not set for life".

To meet the perceived need for contracts and accounting controls, IronBiz commenced a project to develop a performance-based service contract to a prospective supplier of forklift maintenance. This is outlined next.

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### 4.3 *The implementation of contracts and accounting controls*

In creating a relationship with the supplier of forklift maintenance, the Contract Negotiations Manager together with an IronBiz Purchasing Officer envisaged a contract that would require compliance with performance targets as specified in the contractual schedules. Furthermore, all suppliers would report a set of generic indicators on cost performance, the quality of the service provided, safety performance and environmental performance. Measures specific to the nature of the exchange would also be included. In relation to the provision of forklift maintenance, all prospective suppliers were told that:

It is expected that the supplier will provide regular written reports on key performance measures of the contract. Some of the areas for reporting are: per unit and per runhour maintenance cost, run time between breakdowns, breakdown response time, availability of each unit, amount of rework on repairs, safety performance and environmental performance.

The Contracts Negotiation Manager and Purchasing Officer also developed a performance measurement scheme and incentive structure which rewarded reductions in parts and labour usage as well as increased equipment availability. Below an “acceptable range” of parts and labour usage the supplier would receive a nominated rate plus a bonus percentage. If the supplier exceeded the “acceptable range” the excess labour and parts were to be supplied at cost. The supplier also had to ensure that certain levels of forklift availability were achieved. The formal calculativeness that was to be engendered through accounting controls was seen as adding to the level of stability in the exchange, while simultaneously being consistent with the flexibility required. However, in discussions with the selected supplier (labelled “BestSupplier”), implementing formal controls was to prove problematic.

Although BestSupplier agreed to provide the stipulated performance measures, the standards with which performance measures would be evaluated proved contentious for BestSupplier managers involved in negotiations with IronBiz. In particular, the proposed standards for parts usage attracted much debate. The accounting controls that IronBiz was seeking were predicated by the IronBiz Purchasing Officer and Manager – Supply as a response to prior experience. In so doing, they indicated the operation of process-based mechanisms as recalibrating initial trust levels towards lower levels, hence needing more formal information with which to manage suppliers. In contrast, the supplier attempted to avoid the implementation of these accounting controls, especially when IronBiz proposed open cost information about forklift parts. The following exchange observed in a meeting between IronBiz and BestSupplier illustrates these points:

We pretty well know the world, know our competitors, but our price [for forklift parts] to you was at the right end (BestSupplier Field Service Manager).

So what profit do you make on your parts? (IronBiz Purchasing Officer).

A lot, not much. Sometimes zero per cent sometimes a hundred (BestSupplier Field Service Manager).

So you want to . . . you want to look at our invoices? (BestSupplier General Manager 1).

Yeah, I think to build the relationship, you need to be able to say here are our costs and we need to be able to say well here are our costs (IronBiz Purchasing Officer).

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A bit of history on where Paul [IronBiz Purchasing Officer] is coming from. A few years back we were doing audits on one of our suppliers and we found we were paying \$1,000 more on parts than if we were getting them ourselves (IronBiz Manager – Supply).

Are we going to see your costs (IronBiz Purchasing Officer).

Well, you have to rely on our honesty a lot (BestSupplier General Manager 1).

Throughout discussions, the supplier did not dispute the performance measures that were to be implemented. However, BestSupplier remained concerned about the specific targets and benchmarks that the IronBiz Contracts Negotiations Manager was proposing, especially given that penalties were to be linked to a failure to meet these proposed targets. When the IronBiz Contract Negotiation Manager proposed that the benchmark be derived from comparisons with other suppliers, the supplier pointed out certain flaws in this proposal:

We want to revisit the benchmarks on parts and labour, otherwise we'll step into a penalty rate through no fault of our own (BestSupplier Field Service Manager).

Parts bills in excess of \$20,000 a month will be at cost (IronBiz Contract Negotiations Manager).

Where did you get the \$20,000 figure from (BestSupplier General Manager 1).

Maybe you could do an audit, ring around and get prices for a basket of parts from other suppliers (IronBiz Contract Negotiations Manager).

We don't want to make it or IronBiz to make it where you have to monitor us all the time (BestSupplier General Manager 1).

They'll quote you lower than costs because it's additional business (BestSupplier General Manager 2).

I think we need to leave you [the supplier] with the impression that we will do an independent audit every few months by comparing prices to what we can get elsewhere (IronBiz Contract Negotiations Manager).

The supplier representatives persisted in highlighting the disadvantages of using accounting controls. They did not agree with the establishment of the specific benchmarks proposed by IronBiz. Also, the supplier seemed to prefer open-ended and flexible supplier agreements instead of contracts. When it seemed that IronBiz was going to persevere in the implementation of accounting controls and contracts, the supplier attempted to clarify the extent of their accountabilities and responsibilities:

Is it (performance measures and benchmarks) going to be final as a contract, or an agreement? (BestSupplier Field Service Manager).

What's the difference? (IronBiz Contract Negotiations Manager).

In the past we've gone with the latter, but indications we are getting now is that we put it in the contract (IronBiz Manager – Supply).

If we want to change it do we have to go through the whole legal process again? (BestSupplier Field Service Manager).

I would think there would be supporting schedules (IronBiz Manager – Supply).

A number of meetings between IronBiz and BestSupplier were held but consensus on the accounting controls and benchmarks was not achieved. Consequently, it was stipulated in the draft contract that the performance targets were to be left open and subject to revision based on the actual results observed over an initial three to four month period. Tentative structures were thus drawn into the contract, including the following:

Monitoring performance of the forklift fleet will be of key importance to the success of the agreement in reducing IronBiz costs. This information will be obtained and reported to IronBiz by the supplier monthly: availability %; utilisation; downtime; breakdown frequency; service attainment; damage, service, breakdown costs per truck, \$/runhour, environmental performance; and, safety performance.

The contract had not been finalised and signed-off at the time the field research was completed. Nevertheless, performance measures had been identified and defined and were embodied in the draft contract[4].

In summary, accounting controls were seen as providing IronBiz with an ability to act in situations where softer process-based mechanisms (perception and anecdote) disconfirmed initial contractual and competence expectations produced by character-based trust mechanisms. Here, contracts and accounting controls were to enhance supplier relationships by providing a more “detailed” and “objective” process-based mechanism for formulating ongoing expectations about suppliers. Overall, a shift towards formal controls in IronBiz-supplier relationships had occurred, as summarised in Table III.

## 5. Discussion and conclusions

This paper addresses the need to consider the trust-formal control dynamic and the mechanisms by which trust is produced. In doing so, it argues that the various types

Time period	Characteristics of IronBiz-supplier relationships
Prior to 1991/1992	Multiple suppliers for similar product/service groups – in some cases, at least 3,000 suppliers Limited “relationship” beyond delivery of required products/services Supplier selection based on lowest price
1991/1992 to 1994/1995	Reduction of suppliers and creation of single supplier arrangements Trust based approach is implemented where character-based mechanisms are employed to enable assessments of contractual and competence trust
1994/1995 until March-1996 (end of research study)	Process-based mechanisms influence initial character-based trust levels. Initial expectations are disconfirmed in many of IronBiz’s collaborative supply relationships Importance of formal controls (more detailed contractual documentation and performance measures) begin to be widely acknowledged A performance-based service contract is to be implemented in supply relationships, commencing with the outsourcing of forklift maintenance to BestSupplier

**Note:** <sup>a</sup>Periods are overlapping as observed changes did not occur at particular points in time but emerged/occurred over time

**Table III.**  
Overview of changes at  
IronBiz<sup>a</sup>

of character, contractual and goodwill trust are produced through the operation of character-, process- and institutional-based mechanisms as outlined next.

At IronBiz, trust was calculated through a variety of character-based mechanisms in the pre-commencement phase of supply relationships. These mechanisms comprised supplier interviews, audits, background checks and assessments of customer referrals, and provided an initial basis for the formulation of expectations about future exchanges and, specifically, both contractual and competence trust. Furthermore, these initial expectations were supported by broader institutional-based mechanisms and were mediated over time by the ongoing exchanges between IronBiz and supplier and the operation of process-based mechanisms. Overall, the empirical observations obtained supported the conception of trust provided earlier in the paper. In addition, the empirical observations obtained from the IronBiz case study provide insights into the formal control-trust dynamic when managing collaborative supply relationships. These are discussed below in terms of the two research questions of the paper.

In relation to the *RQ1* on the relationship between contracts and trust, recall that there is conjecture in the extant literature on the trust effects of contracts. Contracts have been seen as supplanted by trust (Gulati, 1995; Dyer and Singh, 1998) or stronger still, have negative effects on trust (Ghoshal and Moran, 1996). Conversely, contracts have been seen to complement trust in that they limit the exposure of the relational exchange to risk and uncertainty where these can be a priori specified (Poppo and Zenger, 2002). This lack of consensus is also evident in the field of practice, with evidence of mixed perceptions about the trust effects of contracts within the same outsourcer organisations (Langfield-Smith and Smith, 2003; Cuganesan, 2006). As one contribution to moving the debate forward, this paper offers a more nuanced view on the role of contracts and trust which offers support to both of these positions.

The paper evidences the role of the contract (and its underpinning legal system) as an institutional-based mechanism for the formulation of expectations in the pre-commencement phase of the relationship[5]. This provides a basis for expectations that the agreed-to contract terms are enforceable all else being equal. Should one party default, the other party can seek performance or restitution as specified in the contract and enforced by the courts. Thus, it is argued that contracting as an institution can positively influence contractual trust. This is because the use of contracts in exchange facilitates greater expectations that the other party will honour the agreement entered into. Empirical observations at IronBiz support this proposition. In response to perceptions that suppliers were not honouring contractual obligations, IronBiz attempted to implement more detailed contracts in their supply relationships. Doing so was seen as increasing the possibility that suppliers would deliver according to the (now) more explicitly defined expectations of the relationship.

However, it must be acknowledged that strict adherence to contracts may impinge upon the emergence of relationship-specific norms and open commitments. Parties may be unwilling to deviate from explicitly agreed-to commitments as enshrined in the contract where doing so might result in legal sanctions, even if counterparties to the exchange attempt to assure them otherwise. Thus, it is reasonable to argue that a strict adherence to contracts in managing supply relationships may impinge upon the emergence of goodwill trust. This relationship between contracts and goodwill trust was not observed as sufficient time had not ensued between the implementation of

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contracts and the conclusion of the field research, and remains a proposition to be examined in future work. Here, it should be noted that alternative mechanisms may be used by participants to engender goodwill trust such as the establishment of mutual interests, the building of individual and team-level trust and the establishment of procedures for joint dispute resolution (Das and Teng, 2001).

To conclude on the *RQ1*, it is proposed that it is the institution of contracts which provides the underpinnings for contractual-based trust specifically between exchange partners. Also, a potential negative effect of contracts for trust involves goodwill trust, where the emergence of open commitments may be impinged upon in excessively legalistic environments. Understanding the effects of contracts for trust in this manner highlights that it can simultaneously have both positive and negative trust consequences. While further empirical support is required, the proposed relationships between contracts and trust nevertheless represent an important first step in reconciling the extant literature's ostensibly opposite positions on the issue.

In relation to the *RQ2* on accounting controls and trust, the focus on trust-producing mechanisms and the combination of Sako's (1992) and Zucker's (1986) framework facilitated insights into the dynamics of trust over time and, specifically, how process-based mechanisms such as accounting (specifically, performance measures) recalibrate initial trust levels formed through character-based mechanisms. Thus, this paper is consistent with the proposition of Tomkins (2001, p. 185) that "information . . . will directly affect the degree of trust and then subsequently be influenced by it". Importantly, in providing an empirical validation of this relationship the paper addresses the call that "empirical research is needed to test these propositions" (Tomkins, 2001, p. 185). The paper makes another contribution to the literature on the management control of collaborative supply relationships by going beyond a consideration of the information-trust relationships outlined by Tomkins (2001) to consider the role of "soft" and "hard" information (such as accounting) specifically and their connections to trust.

At IronBiz, accounting controls comprising hard and objective measures of supplier performance were absent initially. However, softer mechanisms such as perceptions and anecdotes that resulted from ongoing relational exchanges reduced trust levels and disconfirmed expectations initially anchored to character-based devices. Importantly, these disconfirmed expectations and diluted trust levels resulted in a shift towards harder calculations comprising accounting measures that would formally measure and evaluate supplier performance and positively impact relationship stability.

Thus, one potentiality for accounting controls involves the provision of information about the performance of exchange partners, which in turn can either confirm or disconfirm existing expectations about the partner's capacity to fulfil contractual obligations and perform to agreed-upon service levels. Hence, accounting controls act as a process-based mechanism that complements softer calculations and which can:

- reinforce and increase pre-existing levels of contractual and competence trust where initial expectations are confirmed or recalibrated upwards; and
- dilute contractual and competence trust where initial expectations are disconfirmed or recalibrated downwards.

Importantly, the relationship between accounting controls and trust is bi-directional. If expectations are sufficiently confirmed, the benefits of continued use of behavioural and outcome-based controls may be seen as insufficiently justifying the costs of

doing so, resulting in accounting's use decreasing and possibly being discontinued over time. Conversely, should initial expectations and trust levels be sufficiently disconfirmed or diluted, then a stronger reliance on accounting controls may occur due to its apparent objectivity in representing performance levels *vis-à-vis* anecdotal evidence or mere perceptions of the behaviour of relationship participants. Here, the "neutrality" and "independence" of accounting numbers and its quantified nature render it a strong device in managing and controlling others (Porter, 1992; Robson, 1992; Chua, 1996). Specifically, the objectivity and representativeness of accounting numbers can result in less ambiguity around collaboration partner performance *vis-à-vis* anecdotal evidence or mere perception.

Thus, the relationship between contractual and competence trust and accounting controls is state-contingent and bi-directional. If process-based mechanisms (of which accounting may be one) reinforce or recalibrate contractual and competence trust levels upwards, accounting may become less relied upon in future buyer-supplier interactions. If process-based mechanisms (of which accounting may be one) dilute or recalibrate contractual and competence trust levels downwards, accounting may become more relied upon in future buyer-supplier interactions.

Similar to the point made in relation to contracts, it is reasonable to argue that an extensive reliance on accounting controls may impinge upon goodwill trust to the extent that the high use of these mechanisms limits the emergence of norms of reciprocity and parties engaging in behaviours other than those explicitly specified and measured. However, this relationship was also not observed due to the conclusion of the field study, and remains a proposition to be examined in future research.

Table IV summarises the relationships between contacts, accounting and trust types that are proposed in the paper. While obvious caution must be used in interpreting the empirical illustrations of the propositions developed due to the single case research method, the elapsed time since the empirical research was conducted [6], the focus on the buyer organisation only, and the examination of dyadic supplier relationships as one example of collaborative arrangements, implications for practice and future research derive from this paper.

In relation to practice, organisations participating in collaborative relationships need to consider the relative importance of goodwill trust possibilities *vis-à-vis* contractual and competence trust around explicit commitments specified in the contract, and how to utilise the various character-, process- and institutional-based trust mechanisms to best effect. While formal controls can help support contractual and competence trust, this may be to the detriment of goodwill trust, and organisations need to consider the relative costs and benefits of the control mixes they deploy. Furthermore, a dynamic approach is also required in reconfiguring the mix of formal and informal controls. This is because process-based mechanisms provide evidence on an ongoing basis that either confirm or disconfirm prior expectations of the relationship and the exchange participant, with implications for how the relationship should be governed and managed into the future.

In relation to future research, the extant literature is yet to adequately conceptualise how accounting facilitates/dilutes the various types of trust, the mechanisms by which this occurs, and the relationship between trust and the utilisation of accounting over time. Viewing trust in terms of its types and processes allows the connection of contractual and accounting controls to trust and a conceptualisation of the specific

Formal controls	Trust types		
	Contractual	Competence	Goodwill
Contracts	As an institutional mechanism, positively influences contractual trust		Negative influence on goodwill trust if strict adherence to contract occurs
Accounting controls	As a process-based mechanism: Can reinforce or recalibrate trust level upwards (depending on underlying partner performance). In turn, this may reduce accounting's use over time as a hard measure of performance Can dilute or recalibrate trust level downwards (depending on underlying partner performance). In turn, this may increase accounting's use over time as a hard measure of performance	As a process-based mechanism: Can reinforce or recalibrate trust level upwards (depending on underlying partner performance). In turn, this may reduce accounting's use over time as a hard measure of performance Can dilute or recalibrate trust level downwards (depending on underlying partner performance). In turn, this may increase accounting's use over time as a hard measure of performance	Negative influence on goodwill trust if strict adherence to accounting controls occurs

**Table IV.**  
Primary relationships  
between formal controls  
and trust

ways in which formal controls can stabilise collaborative relationships. Future studies within the accounting domain need to consider and empirically investigate the relationships proposed herein, focusing on the relative efficacy of particular contracting mechanisms and accounting controls in both sustaining and governing collaborative relationships and in resolving disputes. In so doing, integrated perspectives that investigate both legal and accounting mechanisms in the governance of inter-organisational relationships are called for as a means of advancing the extant knowledge about the nexus between formal controls and trust. In addition, the mix of control mechanisms used and the impact on relationship performance represents a fruitful avenue of further research inquiry.

### Notes

1. Precise numbers are not provided in keeping with the need to preserve the anonymity of IronBiz.
2. These were significant and sustained enough for the owners' of IronBiz to consider selling the business.
3. Visits were only made to those suppliers that survived a "first cut" based on the evaluation measures detailed in the supply department handbook. At least one visit would be made to these short-listed suppliers by the entire supplier selection team. Further visits were held if deemed necessary by the team in reaching consensus as to the preferred supplier.

5. Ongoing access was impacted by the transfer of key gatekeepers at IronBiz. However, follow-up discussions indicated that BestSupplier had been awarded the contract had had commenced the delivery of forklift maintenance services.
5. Other institutional-based mechanisms observed included the reliance supply personnel placed on quality accreditation, such as the various ISO pronouncements, to form expectations about the standard of processes, products and services at the supplier organisation (that is, competence trust).
6. While significant time has elapsed since the conduct of the research, the continued relevance of the empirical observations and the applicability of the hypothesised relationships to contemporary supply arrangements is evidenced by the consistency of the paper's observations and findings to other more recent research (Poppo and Zenger, 2002; Langfield-Smith and Smith, 2003; Dekker, 2004) and theoretical work in the field (Tomkins, 2001).

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