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ANTECEDENTS OF TRUST IN INTRA-ORGANISATIONAL RELATIONSHIPS WITHIN THREE SINGAPORE PUBLIC SECTOR CONSTRUCTION PROJECT MANAGEMENT AGENCIES

Wong E S, Danny Then and Martin Skitmore
School of Construction Management and Property
Queensland University of Technology
Gardens Point
Brisbane Q4001
Australia

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ABSTRACT

The paper examines the role and nature of trust in construction project management performance. Three causes, or antecedents, of trust are identified - results, integrity and concern. A questionnaire survey of construction project team members employed by three public sector infrastructure organisations in Singapore is described. The results confirm the expected correlations. Concluding remarks suggest that enlightened management is needed to keep the three antecedents in reasonable balance.

Keywords: trust, results, integrity, concern, performance.

INTRODUCTION

Academicians, researchers, management practitioners and consultants in the domain of social and behavioural sciences, economics and organisational management have long recognised the importance of trust in human relations (Handy, 1995; Barber, 1983; Luhmann, 1980). Trust is said to stabilise political systems, bind relationships, keep business deals intact and spouses together, and result in an orderly civilised society (Sonnenberg, 1994:188). Far from being an abstract, theoretical, idealistic goal, forever beyond one's reach (Sonnenberg, 1994:188), trust is regarded as not only the glue that holds organisations together but the essential lubricant that helps to get things done (Nicholas, 1993:1; Whitney, 1996:xiv).

The effectiveness and performance of a work group depends on the level of trust existing within the group (Zand, 1972; Golembiewski and McConkie, 1975; Boss, 1978). Jennings (1971); Young, 1978; Lendenmann & Rapoport, 1980). As an organisational resource in the form of "collaborative capital", trust can be used to great advantage (Fukuyama, 1995; Pascarella, 1995:32-8) or, if misused or neglected as in the case of General Motors in the 1980s and early 1990s, can lead to declining competitiveness (Keller, 1989, 1993). Trust between management and employees is a prerequisite for empowerment (Bennis, 1989; Bryce, 1991; Kanter and Stein, 1979; Lawler, 1986; Manz and Sims, 1993; Peters and Austin, 1985). From a management perspective, therefore, this implies the need to consciously integrate trust into the management process as much as any other organisational factor (Shaw, 1997:7; Sonnenberg, 1994:188; Nicholas, 1993:57). This is particularly apposite in a project environment, where developing and maintaining trust relationships between project managers and team members is especially important for, as Thompson (1967) observes, under conditions of uncertainty, complexity, and requiring mutual adjustment, sustained effective coordinated action is only possible where there is mutual trust.

A limited amount of research has been carried out to date in the construction project context. Hannah (1991) studied 30 mainly industrial or public USA construction projects commencing over the period 1984-90. Using Butler's (1991) ten 'conditions for trust' as a basis, she applied a Conditions of Trust Inventory (CTI) together with Shutz's (1958) FIRO:B perceived control instrument to demonstrate a link with participant satisfaction and cost and schedule performance. The major additional findings were an additional five 'conditions', minimal 'project effects' (no

distinction between public/private sector projects, cost reimbursement/lump sum projects, design-build/3 party projects, etc) and that the individuals on a project are more influential factors of trust than are project characteristics. Potential benefits of increased trust levels have also been considered in research by the Construction Industry Institute (1993), where trust-related aspects having the highest cost impact were identified in a study of 262 construction projects across the USA. This showed these aspects to be primarily those relating to establishing open and honest communications, to the professional competencies and integrity of the parties, and the willingness to adapt and implement changes for the betterment of the project. The major recommendations of these studies is that further work is carried out to (1) determine how well representatives cultivate trust, (2) identify and remove areas that hinder trust and (3) consult the literature regarding trust to identify the management actions needed to create an atmosphere of trust.

The focus of the research described in this paper, therefore, was on the factors that influence, or antecedents of, the level of trust within construction project management teams. Based on the work of Shaw (1997) three potential factors – performance, integrity and concern - were isolated and tested by a nonprobabilistic convenience sampling self-report questionnaire survey of three public sector infrastructure development organisations in Singapore involving approximately 150, 80 and 60 professionals undertaking the planning, design and construction supervision of projects respectively.

Due to the absence of a single source document on the topic, and following earlier recommendations, the paper contains a broad review of the literature concerning trust concepts, the development and characteristics of the field, and other salient issues of potential relevance. This is then followed by a description of the empirical section of the work in which the appropriateness of Shaw's factors is confirmed both by direct correlation of measures used and the rank ordering of the respondent organisational groupings.

CHARACTERISTICS OF TRUST

Over the years, there has been increasing research evidence to suggest that trust is a salient factor in determining the effectiveness of many relationships (Baldwin *et al*, 1945; Fiedler, 1953; Seeman, 1954; Parloff and Handlon, 1966). Social scientists have also long recognised the important and fundamental role that trust plays in social and organisation life (Arrow, 1974; Barber, 1983; Deutsch, 1958; Fox, 1974; Gambetta, 1987; Whitney, 1994). In response to this growing appreciation of the important nature of trust, some of the social science disciplines, notably economics, organisation theory, political science and sociology have provided prominent contributions to the topic (Granovetter, 1985; Miller, 1992; Kramer and Tyler, 1991; Zucker, 1986). These contributions have extended and enriched the understanding of the social and organisational bases of trust. Recent developments in the organisational sciences likewise reflect the importance of trust relationships in sustaining individual and organisational effectiveness. These researchers have recognised the influence of trust on coordination and control at both interpersonal (Granovetter, 1985; Pennings and Woiceshyn, 1987) and organisational (Shapiro, 1987; Zucker, 1986) levels.

Numerous definitions of trust have been offered: from Webster's dictionary "a charge of duty imposed in faith or confidence, or as a condition of some relationship" to Rotter's (1967:651) "expectancy held by an individual or a group that a promise, verbal or written statement of

another individual or group can be relied upon", Deutsch's (1973) "confidence that one will find what is desired from another rather than what is feared", Scanzoni's (1979) "actor's willingness to arrange and repose his activities on Other because of confidence that Other will provide expected gratification", Reichart's (1970: 63) " ability to risk oneself in the hands of another, to put oneself at the service of another" to Shea's (1987:vii) "antithesis of chaos and unpredictability … [when lost] we wallow in fear, uncertainty and inefficiency". In the context of project management, Golembiewski and McConkie's (1975: 133) view, that

> Trust implies reliance on, or confidence in, some event, process or person. Trust reflects an expectation about outcomes based on perceptions and life experiences. Trust implies that something is being risked in the expectation of some gain: `(a) pleasant consequences will result if the expectation is fulfilled - the trusting person is better off than if trust had not been extended. (b) unpleasant consequences will result if the trust is unfulfilled - the trusting person will be worse off than if the trust had not been extended. (c) the loss or pain attendant to unfulfilment of the trust is sometimes seen as greater than the reward or pleasure deriving from fulfilled trust. Trust implies some degree of uncertainty as to outcome. Trust implies hopefulness or optimism as to outcome.

in concentrating on outcomes, is particularly relevant.

Researchers and theorists of widely divergent theoretical persuasions attest to the fundamental importance of trust (eg, Luhmann, 1980; Hirsch, 1978: 78-9; Blau, 1964:99; Heimer, 1976:1-4; Sissela, 1978:26; Arrow, 1974, 1970; Ouchi, 1980; Parsons, 1951; Garfinkel 1963:217). In the context of project management, the need for an integrated and effective team is obvious - "a high level of trust" (Anantaraman, 1974:220) or "climate of trust" (Hitt, 1988: 71-4) being said to be a major contributory factor. Along with unity of purpose, respect, common goals and the feeling of group oneness, George (1987:129) emphasises mutual trust as one of the major characteristics of successful management teams. Similarly, Petrock (1990:9) claims successful teams most often occur when "members interact with, rather than react to the leader; they trust each other and share leadership; they place the group's goals above their own".

Interpersonal trust is particularly significant in successful in general relationships (Kouzes and Posner, 1987; Butler, 1986). It arises in four ways (Lindskold, 1978), by:

1. Objective credibility. If it is believed that a person's words are reliable and correspond with his deeds, that person will be considered trustworthy.

2. Attribution of benevolence. If the person or group seems to be motivated to help or reward the perceiver, that person or group will be more trusted than the person or group who seems motivated to injure or lower outcomes.

3. Non-manipulative. A person will be trusted if that person appears to be non-manipulative. If the person is attempting to convince the perceiver to perform an act and it appears that the person is in a position to gain as a result, the person will be less trusted than if the outcomes are apparently unconnected with the perceiver's act.

4. Cost of lying. This assumes that the greater the cost for being untruthful, the more likely it is that a person's message will be accepted as truthful.

Lindskold's four principles can provide the norms upon which the project manager and team

members interact in a project environment. These suggest that the achievement of project objectives will rely largely on the initiatives and judicious management skills of the project manager to influence members' behaviour towards adherence to the trust principles.

Rossiter and Pearce (1975:119-45) found that trust develops in stages: in the early stages, one must trust even though that person is not sure that the other will reciprocate; as time passes, one has to negotiate the process forward through incremental steps; and finally the parties become willing to trust each other not follow impulses to exploit the other person but to interpret the other person's behaviour as trustworthy rather than foolish. Taylor, *et al* (1977) also attribute the notion of 'consequences' to trust development, with three distinct forms applying: the expectation that behaviour of the other person can have either beneficial or harmful consequences; the realisation that the consequences depend on the other person's behaviour; and the confidence that the other's behaviour will have desired consequences.

Trusting groups produce outcomes that are more effective and waste fewer resources than do mistrusting groups (Jennings, 1971; Young, 1978; Lendenmann and Rapoport, 1980), with high trust groups not only having the ability to outperform low trust groups but also outsurvive them (Zand, 1972); Golembiewski and McConkie, 1975; Boss, 1978). The level of trust also affects the degree of defensiveness of those in the group (Gibb, 1961), with members developing a 'defensive attitude' having difficulty concentrating on messages, perceiving the motives, values and emotions of others less accurately, and an increased distortion of messages. Likert and Willits (1940) also found the supervisor's behaviour to be instrumental in determining the level of trust. This includes sharing of appropriate information, allowing mutuality of influence, encouraging self-control, and not abusing the vulnerability of others (Zand, 1972).

Trust opens the lines of communication, helps self-understanding and the development of interpersonal relationships (Taylor *et al* 1977:188-89). Research by the Construction Industry Institute (1993), identified the trust-related aspects having the highest cost impact as primarily those relating to establishing open and honest communications, to the professional competencies and integrity of the parties, and the willingness to adapt and implement changes for the betterment of the project. Other research, by Hannah (1991), has succeeded in connecting trust and construction project success criteria in terms of participant satisfaction (via the Minnesota Satisfaction Scale) and cost and schedule performance.

ANTECEDENTS OF TRUST

Researchers have evolved trust models ranging from uni-dimensional to multi-dimensional (Rotter, 1980; Larzelere and Huston, 1980; Butler, 1986; Gabarro, 1978). Owing to lack of consensus on a common definition of trust, many researchers have identified different combinations of factors that exert influence in a trusting relationship. These are summarised in Table 1. Shaw (1997), who identifies trust as an organisational factor that can, and must be consciously integrated into companies, has placed emphasis on three mutually dependent antecedents:

1. *Achieving results*. It is no longer sufficient for a few essential people to perform in order for the enterprise to grow and prosper. Achieving results applies to individuals, teams and organisations. Trust cannot develop unless consistently positive results are produced.

2. *Acting with integrity*. Integrity and the trust that derives from it are based on: defining a clear purpose; articulating and reinforce over time a clear strategic vision, performance targets, and a set of operating principles for the organisation; being open to sharing and receiving information; dealing with others in a straightforward manner that reveals the true motives and desired outcomes; and honouring commitments.

3. *Demonstrating concern*. Concern, and the trust that derives from it, are based on: developing an identity and *esprit de corps*; and showing confidence in people's ability.

Shaw's model of trust, it is argued, incorporates all the factors identified by other researchers, and was therefore adopted as the model for empirical testing. Table 1 summarises the analysis.

A multitude of measurement scales for trust and its antecedents have been developed by researchers over the years. Four such scales were examined to assess their suitability for adoption/adaptation in the study reported in this paper:

(a) Johnson and Swap (1982): measures variables such as overall trust, emotional trust and reliableness.

(b) Cook and Wall (1980) - measures organisational commitment, personal need non-fulfilment and interpersonal trust at work.

(c) Rempel *et al* (1985) - measures predictability, dependability and faith.

(d) Shaw (1997) - measures trust in relation to achieving results, acting with integrity and demonstrating concern.

As Shaw's model had already been adopted for the reasons described earlier, Shaw's measurement scales were also adopted for the sake of compatibility.

DATA COLLECTION

Many research studies on trust and its correlates comprise surveys via self-report questionnaires (eg, Larzelere and Huston, 1980; Butler, 1986; Cook and Wall, 1980; Rempel *et al*, 1985). This approach was adopted in this study also, employees from three Singaporean public sector organisations voluntarily participating in the survey[1].

Nonprobabilistic convenience sampling was used in which the most easily accessible participants from the organisations were selected. The members of the three organisations were all involved with the planning, design and construction supervision of infrastructure projects. The professionals (comprising of architects, engineers and quantity surveyors) which served as the 'population', total up to around 150 in organisation A, 80 in organisation B and 60 in organisation C. Volunteers from A, B and C were 51 (or 34.0%), 42 (or 52.5%) and 39 (65.0%) respectively. Each respondent was approached, as far as possible, on a personal basis and provided with a

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[1]There is no record of any previous studies involving Singaporean public sector employees providing 'sensitive' data of this kind.

brief explanation of the research topic/objective and the expectations of the survey questionnaire. Respondents were also assured that anonymity and confidentiality would be maintained at all times, to persuade them to give frank and unbiased answers.

The measurement scales for trust and its antecedents were based on Shaw (1997), the rationale being:

- Shaw's three trust antecedents embrace practically all the different ones identified by other researchers
- The reliability and validity of Shaw's measurement scales have been well refined in several past studies and applications

Following a short pilot study in which Shaw's questionnaire was modified to reflect more specifically the characteristics of a project environment, a five sectioned questionnaire (described below) was produced, comprising Section A: 'exhibiting trust' A1; Section B 'achieving results' A2; Section C 'acting with integrity' A3; Section D 'demonstrating concern' A4. In addition, Section 'E' of the survey questionnaire requested responses on "other factors" that could influence trust. This approach was adopted in cognisance of the fact that the three trust antecedents (making up the three independent variables in this study) were derived from a western trust model and, in the local context, it was possible that other factors may have an influencing effect.

Following Shaw, a five-point bipolar rating scale was used. This resembles the Semantic Differential Scale originally developed by Osgood *et al* (1957) and shares the basic characteristics of a Likert-type scale (Judd *et al*, 1991). For Section A (exhibiting trust), respondents were asked to make a series of ratings on this multiple-point response scale, the contrasting statements of the items involved being designed to provoke the respondent's thoughts regarding the level of trust that existed in the project team. A total score, providing a general measure of trust, was then derived by summing the ratings for all the items (according the Shaw, scores of 8-18, 19-29 and 30-40 represent low trust, moderate trust, and high trust respectively). This process was repeated for sections B (performance), C (integrity) and D (concern).

ANALYSIS

The responses to the survey questionnaire (Sections A to D) pertaining to trust and its three antecedents are summarised in Table 2. The participation rate was 51 out of 100 for organisation A, 42 out of 80 (52.5%) for B and 39 out of 60 (65.0%) for organisation C. Table 3 shows the distribution of trust levels within each organisation. Respondents in all the three organisations recorded moderate trust levels at 51.0% for A, 64.3% for B and 52.8% for C. This is followed by high trust levels for A and B respondents at 41.2% and 30.9% respectively. For C respondents, low trust level at 30.8% ranked second, while its high trust level at 15.4% is relegated to the last position. The lowest ranking for A and B respondents is at 7.8% and 4.8% respectively.

A graphical representation of trust against each of the antecedent variables is shown in Figs 1a-c, 2a-c and 3 a-c for organisations A, B and C respondents respectively. The relevant Pearson correlation coefficients are given in Table 2. All are positive and significant (at the 5% level).

20, 10 and 8 respondents from organisations A, B and C respectively provided feedback on 'other factors' that could also influence team member's trust. Some of these factors were already reflected in the survey questionnaire (confirming the applicability of the questions in Shaw's trust model to project team relationships in the local context). The most frequently mentioned 'other' factor was that of leadership, followed by previous working relationships, appointment/rank, cultural differences/background and time constraints of the project.

DISCUSSION

General trust levels

Table 2 indicates the general levels of trust to be highest for the organisation A respondents, followed by organisation B respondents and then organisation C respondents, with 35.3%, 26.2% and 15.4% respectively recording high scores (5.9%, 9.5% and 30.8% respectively recording low scores). If Shaw's three antecedents are correct therefore, is should be expected that not only will the antecedent scores be positively correlated with trust scores in general but that they will also follow the same organisational rank order. This is examined for each antecedent in turn below.

Positive correlation between Trust and Performance

Despite some differences in correlations between the respondent groupings (r^2= 0.33 to 0.90), all are statistically significant, so it can be concluded that 'achieving results' is a relevant factor influencing the building and maintenance of trust for the respondents. As found by Shaw in his studies, the development of trust is a motivational issue requiring rather more than just a supportive environment. Just as management needs to have confidence that employees will deliver on their commitments, so the employees themselves need to have confidence in their own collective abilities to 'produce the goods'. As Shaw has noted, most western corporations relentlessly support this by demanding superior performance of individuals and teams through the use of punitive action when employees consistently fail to deliver and the provision of significant rewards and recognition when they succeed (Shaw, 1997:51).

For the individual respondent groupings, 39.2% of organisation A respondents, 35.7% of organisation B respondents and 12.8% of organisation C respondents recorded high scores for ''achieving results' (0%, 4.8% and 25.7% respectively for low scores), confirming the inter-organisational differences expected.

Positive correlation between Trust and Acting with Integrity

In the survey questionnaire, two of the contrasting statements in the measurement scale for 'acting with integrity' made reference to (a) the degree of consistency in words and actions and (b) the follow through on commitments and promises. In respect of (a), 28 (or 54.19%) out of 51 respondents from organisation A rated the consistency factor highly based on their past experiences. Likewise, 20 (or 47.6%) out of 42 respondents from organisation B and 11 (or 28.2%) out of 39 respondents from organisation C experienced high consistencies in similar situations. In respect of (b), 34 (or 66.6%) out of 51 respondents from organisation A indicated

that there were high follow through on commitments and promises. Likewise, 24 (or 57.2%) out of 42 respondents from organisation B and 12 (or 30.8%) out of 39 respondents from organisation C experienced high follow through actions. Similarly, the overall results in Table 2 provide the same, expected, ranking with 50.9%, 47.6% and 25.7% high scores for organisation A, B and C respondents respectively (4.0%, 4.8% and 33.3% respectively for low scores).

Positive correlation between Trust and Demonstrating concern

In past studies, Shaw identified four elements of "concern" which could give rise to high-trust levels:

(a)   One vision, one organisation: In high-trust settings, the identity of the organisation becomes highly visible and operating through limited hierarchy, few status symbol and informality

(b)   Confidence in people's ability: It is beneficial to treating each individual with consideration and respect, and recognising individual achievements

(c)   Familiarity and dialogue: This requires that management work in open offices located near their employees; an open-door policy facilities contact across levels; frequent team and organisation social gatherings, cross-division meetings, and regular sessions between senior management and divisional employees help ensure communication

(d)   Recognition of contributions: The organisation needs to develop an informal culture that takes pride in the accomplishments of its people and responds with both formal and informal efforts

In the survey questionnaire, three of contrasting statements in the measurement scale for 'demonstrating concern' referred to:

(a)   Team members feeling that they are part of the team and share a common vision.

(b)   Faith in competence of team members.

(c)   Recognition of team members' contributions.

In respect of (a), 33 (or 64.7%) out of 51 respondents from organisation A indicated that they had encountered strong feelings of one team, one vision, based on past experiences. Likewise, 20 (or 47.6%) out of 42 respondents from organisation B and 13 (or 33.3%) out of 39 respondents from organisation C shared similar experiences. In respect of (b), 35 (or 68.7%) out of 51 respondents from organisation A revealed that they had come across great faith in team members' competence from past experiences. Likewise, 22 (or 52.4%) out of 42 respondents from organisation B and 15 (or 38.5%) out of 39 respondents from organisation C encountered similar situations. In respect of (c), 21 (or 41.2%) out of 51 respondents from organisation A had been exposed to high degree of recognition for team members' contributions. Likewise, 16 (or 38.1%) out of 42 respondents from organisation B and 8 (or 20.5%) out of 39 respondents from organisation C encountered similar situations. Similarly, the overall results for 'concern' in Table 2 are 41.2%, 38.1% and 20.5% high scores for organisation A, B and C respondents respectively (5.9%, 11.9% and 20.5% respectively for low scores). Again, these results correspond to the expected

ordering of respondent organisational groupings

CONCLUSIONS

This paper examined the nature and role of trust for a sample of respondents employed by three public sector infrastructure organisations in Singapore. This showed a statistically significant correlation between trust and Shaw's three antecedents of trust – achieving results, acting with integrity and demonstrating concern. It was also shown that the rank ordering of respondent organisational groupings in terms of trust corresponded with the rank ordering in terms of antecedents. From this, it would seem reasonable to conclude that the three antecedents are causally related to trust, because there is no evidence here to conclude otherwise.

This, of course, has far-reaching implications for, as Shaw (1997:33-4) points out, sustaining an appropriate level of trust requires the judicious balancing of the three antecedents - even when they come into conflict with each other. This balancing act requires enlightened management, compatible organisational structures and processes and appropriate organisational culture.

Of course, this contrasts dramatically with the increasing demands for competition in an ever-changing global economy rendering commitments increasingly short-lived as conditions call for rapid changes in an organisation's strategy and policy. In this case, the emphasis on results may dominate that of concern for the well being of the participants. Similar situations may arise in times of crisis, process reengineering or even relatively simple changes in organisation structure.

However, in view of Hannah's (1991) and the Construction Industry Institute's (1993) findings – that trust contributes to project success – together with Shaw's assertion that results contribute to trust development, it is clear that improved organisational performance can be both a contributor to, and outcome of, increased levels of trust if managed well enough. Provided the other two antecedents of integrity and concern are also present, it would seem that improved results improve trust and improved trust improves results.

Research limitations

The research involved an empirical test using a western trust model (with slightly modified measurement scales), as no well-established Asian model was available. It had to be assumed, therefore, that the three trust antecedents or factors influencing trust associated with temporary teams in the western model, are applicable also to trust assessment in a local, more permanent, project team environment. As subsequently revealed in the survey findings, respondents identified other factors such as leadership, cultural difference and appointment/rank, which could influence team members' trust.

Owing to the sensitiveness of the survey data, the study could only be conducted with a limited sample size. Respondents participated on an unofficial and voluntary basis. Under the circumstances, only a nonprobabilistic convenience sampling could be implemented and this might have given rise to selection bias and lack of representativeness in the sampling design. The lingering fear of being exposed and identified with adverse response data, despite assurance of confidentiality and anonymity, might have forced some respondents to be less frank and untruthful in their response to the questionnaires. In addition, generalisation of the research

findings to other identical organisational settings might be restrictive.

For future work in this area, the profile of respondents that had not been taken into consideration in this study could be introduced as moderating variables eg, age, gender, education levels, length of service, qualifications, types of profession (architect/engineer/quantity surveyor) and appointment/rank. Certain moderating variables may have a strong contingent effect on the relationship between the independent and dependent variables. In addition, a future study could incorporate other trust antecedents such as leadership, cultural diversity, etc (which had been identified by respondents in this study) as additional independent variables.

ACKNOWLEDGEMENTS

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Shaw (1997) --	Achieving Results (related to obligations/ meeting commitments/ competence/ability to deliver/ etc.)	Acting with Integrity (related to honesty/ consistency/keeping promises/benevolence/ coherence/fairness/ predictability/openness/ honour commitments/ reliability/dependability/ responsibility/ etc.)	Demonstrating Concern (related to caring/faith/ supportive/responsive/ availability/loyalty/ receptivity/ reciprocity etc.)
Altman & Taylor (1973) *Giffin (1967)* *Pearce (1974)* *Wrightman (1964*)		Benevolence / honesty	
Deutsh (1962) *Ellison & Firestone (1974)* *Lorr & Youniss (1973)* *Phillips & Metzger (1967)*		Benevolence	
Lederer & Jackson(1968) *Lorr (1975)* *Rotter (1971)* *Schlenker et al (1973)*		Honesty	
Alexander & Ruderman (1987) *Folger & Konovsky (1989)* *Organ (1988)*			Fairness
Rempel, Holmes & Zanna (1985)		Predictability / Responsibility	Faith
Butler (1991)	Competence	Fairness / openness / promise fulfilment	Availability / loyalty / receptivity
Dwyer & LaGace(1986) *Rotter (1971)*	Competent	Consistent / honest / fair / responsible / benevolent	Helpful
Cook & Wall (1980)	Competence	Responsibility	
Johnson - George & Swap (1982) *Zucker (1986)*		Reliability dependability	
Lindskold (1978) *Stack (1988)*		Fairness / follow–through commitment	Reciprocity

Table 1: Shaw's antecedents of trust

Scoring Criteria	Trust	Results	Integrity	Concern
Low (8-18)	3 (5.9%)	0	2 (4.0%)	3 (5.9%)
Moderate (19-29)	30 (58.8%)	31 (60.8%)	23 (45.1%)	27 (52.9%)
High (30-40)	18 (35.3%)	20 (39.2%)	26 (50.9%)	21 (41.2%)
	51 (100%)	51 (100%)	51 (100%)	51 (100%)
Correlation (r^2)		0.33	0.79	0.76

Organisation A

Scoring Criteria	Trust	Results	Integrity	Concern
Low (8-18)	4 (9.5%)	2 (4.8%)	2 (4.8%)	5 (11.9%)
Moderate (19-29)	27 (64.3%)	25 (59.5%)	20 (47.6%)	21 (50.0%)
High (30-40)	11 (26.2%)	15 (35.7%)	20 (47.6%)	16 (38.1%)
	42 (100%)	42 (100%)	42 (100%)	42 (100%)
Correlation (r^2)		0.90	0.55	0.69

Organisation B

Scoring Criteria	Trust	Results	Integrity	Concern
Low (8-18)	12 (30.8%)	10 (25.7%)	13 (33.3%)	12 (30.8%)
Moderate (19-29)	21 (53.8%)	24 (61.5%)	16 (41.0%)	19 (48,7%)
High (30-40)	6 (15.4%)	5 (12.8%)	10 (25.7%)	8 (20.5%)
	39 (100%)	39 (100%)	39 (100%)	39 (100%)
Correlation (r^2)		0.52	0.85	0.88

Organisation C

Table 2: Distribution of scoring criteria

Scoring Criteria	Low trust (32- 74)	Moderate trust (75-117)	High trust (118-160)
Organisation A	4 (7.8%)	26 (51.0%)	21 (41.2%)
Organisation B	2 (4.8%)	27 (64.3%)	13 (30.9%)
Organisation C	12 (30.8%)	21 (53.8%)	6 (15.4%)

Table 3: Trust profile

Organisation A
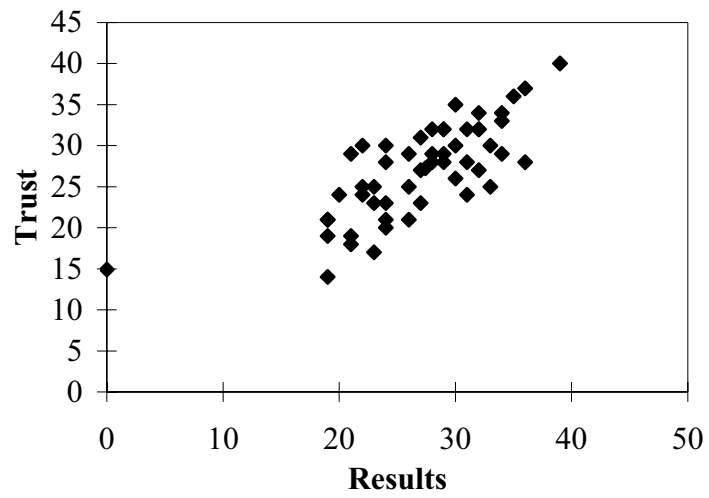
Fig 1a: Trust vs results
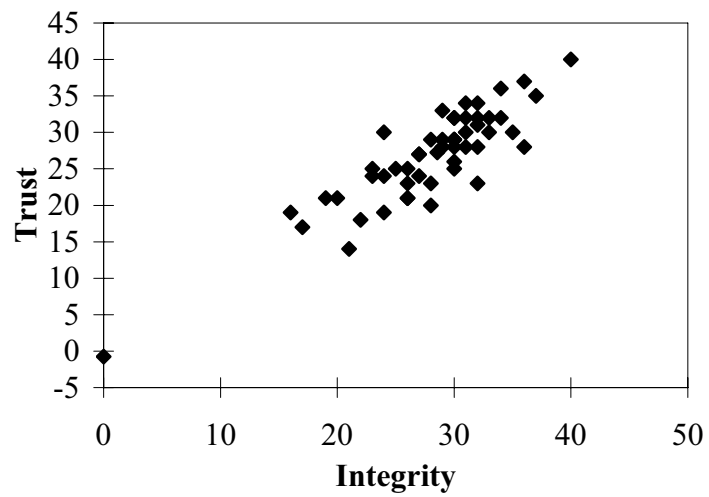
Fig 1b: Trust vs integrity
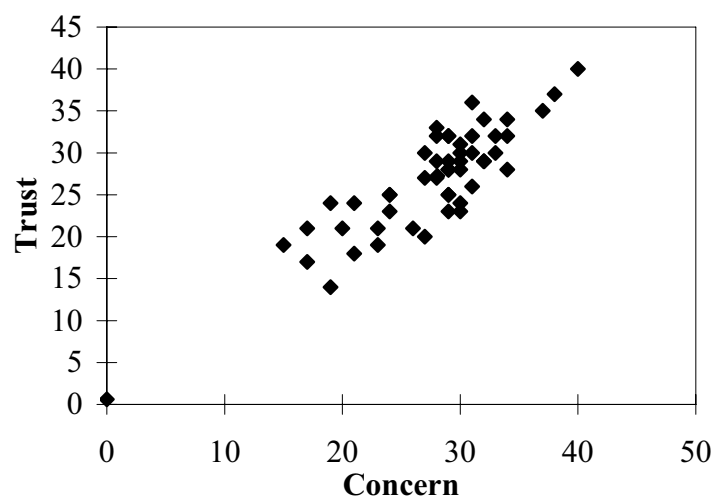
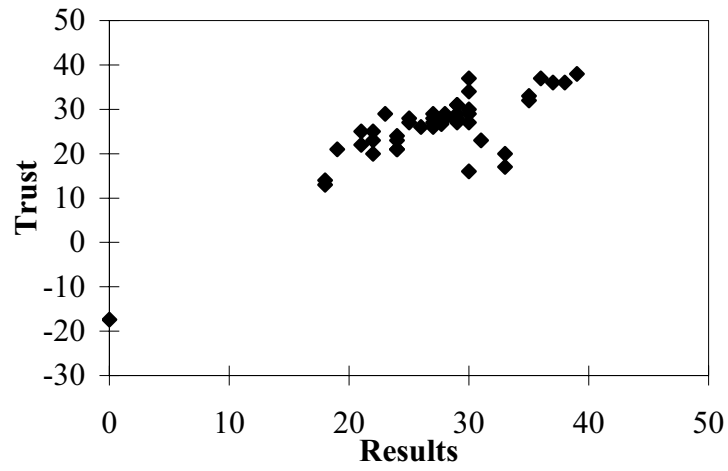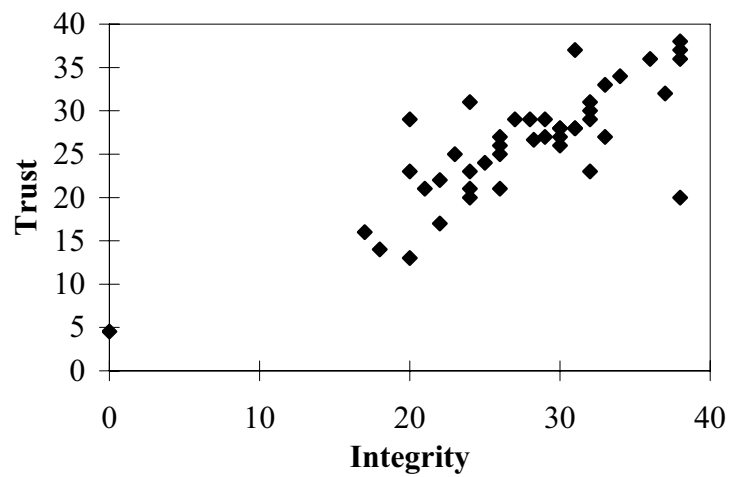*Fig 1c: Trust vs concern*

Organisation B

Fig 2a: Trust vs results
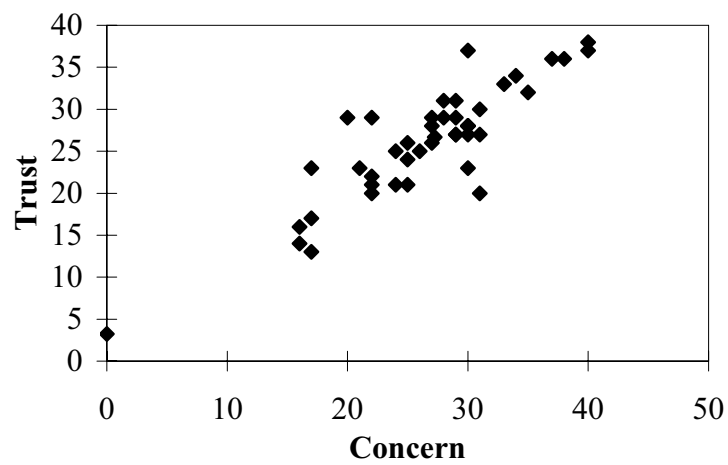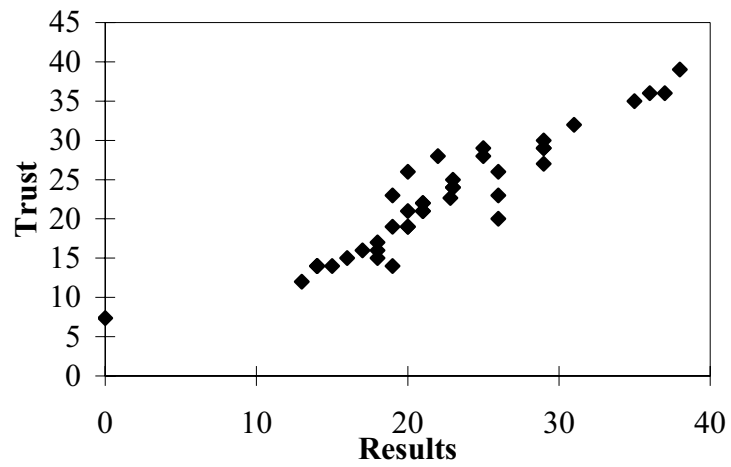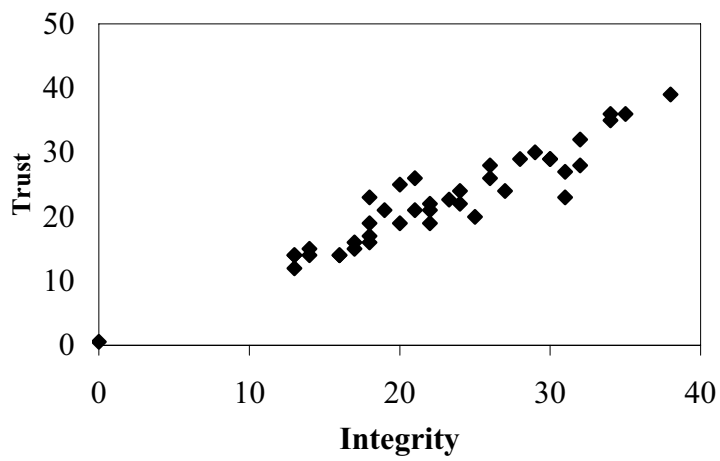

Fig 2b: Trust vs integrity

Fig 2c: Trust vs concern

Organisation C

Fig 3a: Trust vs results

Fig 3b: Trust vs integrity

Fig 3c: Trust vs concern