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Work team trust and effectiveness

Work team trust
and effectiveness

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Keywords *Trust, Behaviour, Performance management, Team working, The Netherlands*

Abstract *This article aims to explore the nature and functioning of trust in work teams. Trust is defined as a multi-component variable with distinct but related dimensions. These include propensity to trust, perceived trustworthiness, co-operative and lack of monitoring behaviours. A model was tested relating trust with perceived task performance, team satisfaction, and two dimensions of organisational commitment, i.e. attitudinal and continuance. Survey data from 112 teams ($n = 395$) was collected in three social care institutions in The Netherlands. The results are supportive of a multi-component structure for trust and of its importance to the functioning of teams and organisations. Work team trust appeared strongly related with team member's attitudes towards the organisation. Trust between team members was positively associated with attitudinal commitment and negatively with continuance commitment. Trust was also positively related with perceived task performance and with team satisfaction. In addition, perceived task performance appeared strongly related to team satisfaction.*

Introduction

Scholars have long been interested in the study of trust in organisations (e.g. Gambetta, 1988, Coleman, 1990). During the past few years this interest has turned into a major focus of organisational literature and research, leading to a renewed emphasis on the nature, causes and consequences of trust (Hosmer, 1995, Kramer, 1999; Shaw, 1997, Rousseau *et al.*, 1998). This resurgence of interest is partly explained by the changes in the way of thinking and functioning of organisations during the last two decades of the millennium. As organisations have become flatter and more team centred, traditional management forms have given way to more collaborative approaches that emphasise co-ordination, sharing of responsibilities and the participation of the workers in the decision processes (Keen, 1990). New emphasis is given on interpersonal and group dynamics at the workplace, where trust is seen as one of the critical elements. If trust is absent, no one will risk moving first and all members will sacrifice the gains from collaboration and co-operation in increasing effectiveness (Sabel, 1993).

Although scholars agree on the importance of trust in sustaining effectiveness, research on this topic has been highly affected by the lack of agreement in defining this concept. One problem of studying trust is the vast applicability of the term "trust" to different contexts and levels of analysis. Within the organisational literature, trust has been studied with regard to interpersonal work relationships, teams, organisations, governance structures or even societies as a whole. As result, an enormous variety of approaches and



definitions have emerged across disciplines, appearing sometimes largely disconnected and ignoring each other's contributions, or criticised each other's research methods and accomplishments very severely. Recognising that trust reflects a multitude of roles, functions and levels of analysis has been a turning point for theory and research on this topic. Instead of accentuating the differences between conceptualisations, researchers have started to concentrate on the common elements across perspectives in order to provide coherent knowledge with regard to trust and its role in the functioning of organisations (e.g. Hosmer, 1995; Kramer, 1999; Rousseau *et al.*, 1998). Nevertheless, given its wide domain of research, clear boundaries for the trust concept are necessary in order to understand what is meant by trust and how to define it. In this article, we address trust at the work team level that refers to the extent to which team members trust each within a work team. Similar to other studies that focus on work team processes (e.g. Gladstein, 1984; Hackman, 1987; Anderson and West, 1996, 1998) we view work teams as performing organisational units. This means that work teams are real organisational groups, that have some goal or attainable outcome which team members contribute to and are responsible for, and where there is sufficient task interdependence such that individuals need to develop shared understandings and expected patterns of behaviour.

We adopt a multidisciplinary perspective on trust by developing and testing a model based on presuppositions from different literatures including sociology (e.g. Barber, 1983; Lewis and Weigert, 1985; Luhmann, 1979), economics (e.g. Cummings and Bromiley, 1996) and the psychological work on interpersonal and team relationships (e.g. Mayer *et al.*, 1995; McAllister, 1995; Rousseau *et al.*, 1998; Zand, 1972). The present research aims to contribute to the understanding of the nature and functioning of trust at team level by describing trust as a multi-component variable and identifying the factors that operate combined when trust is taking place, and examining the implications of trust for the effectiveness of the team.

The concept of trust

To date no definition of trust has been universally accepted. Despite the differences of opinion, several issues seem common across definitions. As Rousseau *et al.* (1998) note from micro psychological theories (e.g. McAllister, 1995; Lewicki and Bunker, 1996; Zand, 1972) to social/economics approaches (e.g. Barber, 1983; Cummings and Bromiley, 1996) positive expectations towards the behaviour of others and the willingness to become vulnerable to others are critical elements to define trust.

In most definitions, trust appears related to individual attributions about other people's intentions and motives underlying their behaviour (Smith and Barclay, 1997). For example, for Lewicki and Bunker (1996) trust involves "positive expectations about others". These attributions influence and are influenced by general beliefs and expectations of individuals about the

treatment they will receive from others (Mayer *et al.*, 1995). In turn, these are closely linked to the engagement, or the willingness to engage cooperative behaviours when interacting with others (e.g. Gambetta, 1988; Deutsch, 1962; Kramer *et al.*, 1996).

“The willingness to be vulnerable” from Mayer *et al.* (1995) is one of the most cited definitions of trust and has played a central role in many conceptualisations. For instance, McKnight *et al.* (1998) refer to trust as the belief and the willingness to depend on another party. Jones and George (1998) associate the willingness to become vulnerable to a set of behavioural expectations that allows individuals to manage the uncertainty or risk associated with their actions. Risk appears central in many definitions of trust and consists of the perceived probability of loss as perceived by the trusting person(s) (Mayer *et al.*, 1995). For Luhmann (1979) risk is a prerequisite in the choice to trust. If actions could be undertaken with complete certainty trust would not be needed (Lewis and Weigert, 1985). Underlying the “decision to trust” is also the individual willingness to become vulnerable (Zand, 1972), and the expectation or belief that others will act in a way that is beneficial or at least not detrimental for the relationship (Gambetta, 1988). Trust is also contingent to a certain situation and tends to be based not only on personal information, but also on non-personal (situational) information. Lewicki and Bunker (1996) argue that trust involves not only expectations about other peoples’ motives and intentions, but also considerations about the situation and the risks associated with acting on such expectations.

According to Rousseau *et al.* (1998) risk creates the opportunity for trust, which then leads to risk taking. Risk taking sustains the sense of trust given that the expected behaviour materialises (Boon and Holmes, 1991) and presupposes an action towards those whom we are trusting. In Gambetta’s (1988) definition of trust risk taking involves “engaging in some form of cooperation” with the other part. For Smith and Barclay (1997) besides “acting in a spirit of cooperation” trust also involves refraining from controlling or monitoring others. Throughout research a variety of behaviours has appeared indicative of trust including open communication (Currall and Judge, 1995; Smith and Barclay, 1997), acceptance of influence (Blau, 1964; Smith and Barclay, 1997), forbearance from opportunism, (Smith and Barclay, 1997), and lack of monitoring (Currall and Judge, 1995; Smith and Barclay, 1997). In contexts of ongoing relationships such as work teams these behaviours might occur simultaneously, one type of behaviour may lead to another one, or even in some situations some behaviours may be less present than those of others. The relative importance of each form of behaviour depends on the nature and context of the work relationship (Smith and Barclay, 1997). Since trust involves granting latitude to others over actions that will have an impact on ourselves, decisions to confer trust do probably involve assessments of the accompanying risks and alternatives available to avoid such risks (Morris and Moberg, 1994).

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In discussing how expectations underlying trust affect subsequent behaviour, several scholars have alluded to the fact that trust is a multidimensional construct. From a sociological point of view, Barber (1983) argues that trust involves moral, emotional and cognitive bases. Lewis and Weigert (1985) explain trust as highly complex phenomenon with distinct cognitive, emotional and behavioural dimensions. Within economics, Cummings and Bromiley (1996) use the same dimensions to define trust between individuals or groups in more work-related contexts. More focused on dyadic work relationships, psychologists such as McAllister (1995) distinguish between contents of cognition-based and affect-based trust and the specific factors that influence the development of each form. Mayer *et al.* (1995) propose further that cognitive and affective dimensions of trust influence and are influenced by a general propensity to trust others, which develops from general beliefs about the treatment individuals expect to receive from others.

In line with several of these multi-dimensional conceptualisations of trust, we propose that trust is not only a psychological state based on expectations and on perceived motives and intentions of others, but also a manifestation of behaviour towards these others (see Costa, 2000; Costa *et al.*, 2001). Consistent with Mayer *et al.*'s (1995) integrated model of trust, we distinguish between: propensity to trust, or the general willingness to trust others (Rotter, 1980) grounded in the individual's personality, life experiences, cultural background, education and several other socio-economic factor; perceived trustworthiness, referring to the expectations and considerations about other people's motives and intentions underlying their actions; and trust behaviours (in Mayer *et al.*, referred to as risk taking) which refer to the actions that reflect the willingness to be vulnerable to others whose actions one does not control. Mayer *et al.* (1995) propose a sequential model with these distinctive components of trust. However, in reality these components constitute interpenetrating and mutually supporting aspects of the one unitary experience that we call trust (Lewis and Weigert, 1985). Earlier work shows that individuals who trust their team colleagues have high propensity to trust others, strongly perceive other team members as being trustworthy, often engage co-operative behaviours and do not monitor the work of their colleagues (Costa *et al.*, 2001).

Contrary to some other definitions (e.g. Rousseau *et al.*, 1998), we view co-operative behaviour and lack of monitoring as components of trust and not as an effect of trust itself (see Figure 1). We argue that these behaviours are an important component of trust because they enable individuals to act on their own judgements (Lewis and Weigert, 1985). Moreover, it is through the observation and interpretation of such behaviours that individuals learn about each other's motives and intentions, and are able to make inferences of trustworthiness (Zand, 1972). Therefore, we consider co-operative behaviours and lack of monitoring to be components of trust together with propensity to trust and perceived trustworthiness.

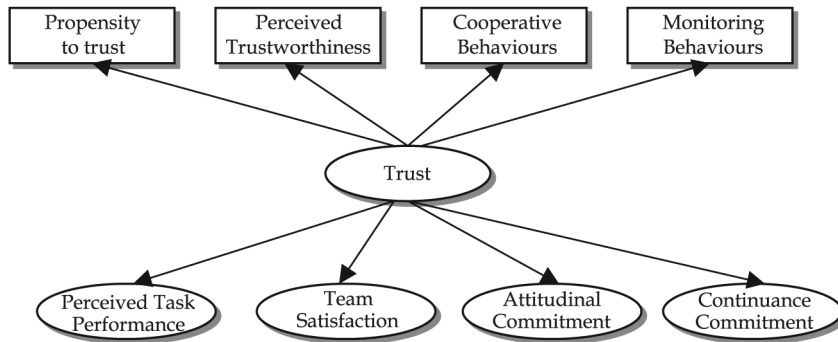


Figure 1.
Conceptual model

Trust and effectiveness

Effectiveness is a notion often used to express multiple individual and team outcomes. With regard to teams, Hackman (1987) argues that effectiveness should measure the output of the team, the state of the group as a performing unit, and the impact of the group experience on individual members. Researchers usually assess effectiveness by measuring dimensions of performance and members' attitudes towards the team or the organisation (Cohen and Bailey, 1997). In this study, effectiveness is assessed in terms of perceived task performance, team satisfaction and commitment to the organisation.

Apart from the general assumption that trust is an important lubricant of the social system and a facilitator of co-ordinated action among individuals, several important benefits for teams and organisations have been associated with trust. The relation between trust and performance has been explored at both individual and group levels (see Dirks and Ferrin (2001) for a wider review of these studies), however, somewhat inconsistent findings can be found across studies. In other words, some studies report a main effect between trust and performance while others do not. For instance, McAllister (1995) found a positive relation between the behavioural consequences of trust and the supervisor's assessment of performance. Smith and Barclay (1997) found also a positive relation between trusting behaviours and perceived trustworthiness with task performance using different rationales. However, in Dirk's (1999) study the relation between trust and team performance was not significant. One explanation can be related to the fact that in most empirical studies trust has been conceptualised as a psychological state, such as belief or an attitude towards a known individual or group of individuals in opposition to trust as a multidimensional or multi-component construct. The rational behind these approaches rests on the premise that a high level of trust increases the likelihood that one will take a risk (e.g. co-operate or share information) with another partner or group, which in turn is expected to lead to a higher

performance (e.g. Dirks, 1999). In this way, rather than affecting performance directly, trust may moderate the relation between group processes and performance (Dirks and Ferrin, 2001). However, by considering trust as a multi-component variable including also behaviours such as co-operative and lack of monitoring some support can be found for the positive main effect of trust on team performance.

Although team performance can be evaluated from a management point of view, team members have the best understanding over how well their team performs tasks in relation to their objectives. Moreover, perceived task performance has been found to correlate strongly with more objective measures and relationship continuity (Smith and Barclay, 1997). Therefore, we can expect a positive relation between trust within teams and perceived task performance:

H1. Trust between team members will be positively related with perceived task performance.

Satisfaction and commitment have been often associated with trust. For instance, Gladstein (1984) found a strong link between intra-group processes (including open communication) and satisfaction. In contexts of buying and selling relationships, Smith and Barclay (1997) reveal that trust behaviours of open communication and forbearance from opportunism lead to mutual satisfaction between partners. In this way, we can expect that trust between team members will have a positive effect on team satisfaction:

H2. High levels of trust between team members will be positively related with team satisfaction.

While describing the commitment-trust theory, Morgan and Hunt (1994) found that work relationships characterised by trust engender co-operation, reduce conflicts, increase the commitment to the organisation and diminishes the tendency to leave. Mowday *et al.* (1982)) view commitment to the organisation in terms of attitude and continuance. Attitudinal commitment is seen as a positive attitude towards the organisation, reflecting the extent to which individuals come to identify with the goals and values of the organisation and want to maintain their membership to the organisation (Mowday *et al.*, 1982). Whereas continuance commitment is described as a more calculative attitude towards the organisation, reflecting a membership based on economic reasons, prior investments or lack of alternatives available (Kanter, 1968). Therefore, the relationship between trust and both forms of commitment is expected to be opposite:

H3. High levels of trust between team members will be positively related with attitudinal commitment and negatively related with continuance commitment.

Conceptual model

Our conceptual model illustrated in Figure 1 consists of two parts. The first part addresses the nature of the trust concept. In this model trust is presented as a latent variable, composed of propensity to trust, perceived trustworthiness, cooperative behaviours and lack of monitoring behaviours. The second part of the model examines the relation between trust and several team effectiveness variables such as task performance, team satisfaction, attitudinal commitment, and continuance commitment.

Method

Sample

A survey study was conducted in three social care institutions in two different provinces in The Netherlands. Social care institutions are semi-public organisations that function within the framework of the law on social provision of employment. These organisations perform the social function of providing jobs for those who have difficulties in finding one, and at the same time are commercial and market oriented. The three institutions in this study will be mentioned further as Social-Care A, B and C. Initially 144 teams (552 individuals) were asked to participate in this study. A total of 395 individuals provided data via a questionnaire, making possible the identification of 112 teams with a minimum number of three members. The participation rate was 71.5 per cent. The average age was 40.5 (SD = 10.3 years). Of these 395 respondents, 12.5 per cent completed a basic education, 38 per cent completed a low occupational training, 42.4 per cent completed a middle occupational training, 22 per cent completed a high occupational training and 1.5 per cent completed university. The size of the teams ranged from three to six, with an average of 4.25 individuals per team. The sample included 44 teams from Social-Care A, 41 from Social-Care B and 27 from Social-Care C. The average tenure of the teams was respectively 2.6 years (SD = 1.2), 2.5 years (SD = 1.0), and 3.6 years (SD = 5.1). Of these teams, 55 (48 per cent) included only male respondents, eight (7 per cent) included only female respondents and 47 (45 per cent) included respondents from both genders.

Measures

All variables in our model were measured with validated instruments. The reliability of the scales is satisfactory showing Chronbach alphas > 0.70 (see Table I). The scales consisted of self-report items scaled in a seven-point Likert scale (1 = completely disagree to 7 = completely agree).

- *Trust.* This was measured with four scales (Costa, 2000): seven items measuring propensity to trust (e.g. "People usually tell the truth, even when they know they would be better off by lying"); eight items measuring perceived trustworthiness (e.g. "In my team some people have success by stepping on other people" (reversed item); eight items measuring

PR 32,5		No	M	SD	α	F	rwg(j)
	Propensity to trust	6	31.11	7.86	0.84	2.13**	0.82
	Perceived trustworthiness	6	28.63	6.89	0.87	2.34**	0.81
	Cooperative behaviours	6	33.87	7.98	0.81	2.10**	0.81
	Monitoring behaviours	3	14.51	3.02	0.71	1.97*	0.75
	Perceived task performance	4	25.54	5.61	0.75	2.03**	0.79
	Team satisfaction	3	17.75	3.40	0.85	2.40**	0.82
	Attitudinal commitment	4	21.69	3.46	0.71	2.13**	0.80
	Continuance commitment	3	12.49	3.77	0.76	2.00**	0.79
	Notes:						
	* $p < 0.05$						
	** $p < 0.01$						
	No is the reliable number of items in each scale, M is mean scale, SD is standard deviation, α is Chronbach alpha, F is ratio ANOVA, rwg(j) is the within-group interrater agreement						

Table I.
Scale characteristics
and within-group
agreement

cooperative behaviours (e.g. “In my team we provide each other with timely information”); and three items measuring monitoring behaviours (e.g. “In my team people check whether others keep their promises”).

- *Perceived task performance.* This was measured with a nine-item-scale “task performance” from the Expanded Delft Measurement Kit from Roe *et al.* (1997). An example is “I think our team deserves a good evaluation from our supervisor”.
- *Team satisfaction.* This was measured with a five-item scale from Smith and Barclay (1997) that assesses the extent to which team members are satisfied with their teamwork. One item of this scale is “We are satisfied with each other’s contributions to our team”.
- *Attitudinal commitment and continuance commitment.* These were measured with five-scale item developed by Freese and Schalk (1996). An example of an attitudinal commitment item is “My personal norms and values correspond with what the organisation finds important”, and of continuance commitment item is “I have few changes to leave this organisation.”

Level of analysis

The team scores were obtained by aggregating the individual scores on each item within each team. This aggregation was obtained by computation of means in order to permit comparisons across teams without variances in the sample size. The level of agreement within the teams was examined with analysis of variance (ANOVA) and with the within-group interrater agreement index – rwg(j) – of James *et al.* (1984, 1993). The minimum evidence for differences across teams is provided by an F -ratio > 1.00 (Hays, 1991).

Values of $\text{rwg}(j)$ equal to 0.70 or above demonstrate high consistency within groups and justify the aggregation within that team. This is the same value provided by Nunnally (1978) as an acceptable level for internal consistency.

In this study the results of one-way ANOVA indicate that the between-group variance was significantly greater than the within-group variance in all scales (see Table I). Moreover, all rwg values were above 0.70. The aggregation of scores at team level is therefore justified.

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Analyses

For the test of our hypotheses, we used structural equation modelling (SEM). We took a two-stage approach, assessing first the measurement properties of the constructs without considering the hypothesised relationships, and second, the structural model (Anderson and Gerbing, 1988). In both procedures correlation matrices were used. The adequacy of the models was examined using several indices of fit. The chi-square, with non-significant values showing a good model fit. The ratio χ^2/df , with values below 2.0 suggesting a good model fit (Wheaton *et al.*, 1977). The comparative-fit-index (CFI) (Bentler, 1990), the goodness-of-fit-index (GFI) and the adjusted-goodness-of-fit-index (AGFI) (Bentler and Bonnet, 1980). These indices indicate a good model fit for values > 0.90 . The parsimonious fit was assessed with the parsimonious-goodness-of-fit-index (PGFI) and the parsimonious-normed-fit-index (PNFI). Values > 0.50 or > 0.60 indicate a good parsimony fit. The analysis of the residuals was made using the root-mean-square-error-of-approximation (RMSEA) and the root-mean-squared-residual (RMR). Values of RMSEA < 0.08 indicate a good fit and < 0.05 a very good fit. For the RMR, in general values > 0.08 indicate a poor fit, between 0.08 and 0.05 suggest a mediocre fit, and < 0.05 indicate a good fit (Byrne, 1998).

Results

Measurement models

Two confirmatory factor analyses (CFA) were run to examine the structural properties of the trust components and the dependent variables in the study (Table II). For the trust components the measurement model distinguished between propensity to trust (six items) perceived trustworthiness (six items), co-operative behaviours (six items) and monitoring behaviours (three items). Although the four-factor model shows a significant χ^2 , the CFI indicates a good model fit (CFI = 0.94). Both the GFI and AGFI are moderated, and the parsimonious fit indices PGFI and PNFI indicate a good parsimonious fit. Following Bentler and Bonnet (1980) and Byrne (1998) we ran also several CFAs for concurrent model structures with one, two and three factors. As shown in Table II, the decrease in the number of factors is accompanied by a successive decline in model fitting. The χ^2 increases as fewer factors are specified in the models, the goodness of fit indices indicate a decrease in fit, and

Table II.
Fit indices for the
measurement
models

Models	χ^2	df	p	χ^2/df	GFI	AGFI	CFI	PGFI	PNFI
<i>Trust</i>									
Four factors	237.13	180	0.03	1.32	0.83	0.78	0.94	0.65	0.63
Three factors	300.86	182	0.00	1.65	0.80	0.74	0.88	0.63	0.60
Two factors	469.56	184	0.00	2.55	0.68	0.60	0.71	0.54	0.52
One factor	578.67	185	0.00	3.13	0.60	0.50	0.60	0.48	0.43
<i>Team effectiveness</i>									
Four factors	73.25	48	0.01	1.52	0.90	0.84	0.87	0.55	0.56
Three factors	128.00	51	0.00	2.50	0.84	0.75	0.73	0.54	0.50
Two factors	150.62	53	0.00	2.84	0.81	0.73	0.67	0.53	0.48
One factor	232.89	54	0.00	4.31	0.74	0.63	0.45	0.57	0.34
Notes:									
Independent model for trust: $\chi^2 = 1,094.12$ (df = 210, $p = 0.001$)									
Independent model for team effectiveness: $\chi^2 = 405.46$ (df = 66, $p = 0.00$)									

the ratio χ^2/df increases as the models include fewer factors. Only the models with three and the four factors show an adequate fit according to this ratio, $\chi^2/\text{df} = 1.65$ and $\chi^2/\text{df} = 1.32$ respectively. However, only the four-factor model obtained a comparative fit > 0.90 . Therefore, we favoured the four-factor model for trust above the other concurrent models.

For the dependent variables the measurement model distinguished between perceived task performance (four items), team satisfaction (three items), attitudinal commitment (three items) and continuance commitment (three items). This structure fitted the data reasonably well. Although chi-square is significant the ratio χ^2/df is < 2.0 . The adequacy of concurrent models with one, two and three factors was also examined (see Table III). The results show a considerable decrease in model fit for these concurrent structures. Not only the χ^2 is highly significant and $\chi^2/\text{df} > 2.0$, but also the other fit indices show an inadequate fit results. Accordingly, we considered the four-factor model to provide an adequate structure for the dependent variables.

Hypotheses testing

Based on the four-factor structure obtained from the measurement model for the trust components we created a model for trust using four observed variables. These observed variables were obtained by summing the item scores in each factor into a total score.

In Table III the results indicate that this model fits the data well: χ^2 2.41 (df=2, $p = 0.30$), GFI is 0.99 and the AGFI is 0.95. The CFI is 0.99 and the RMSEA and RMR are both < 0.05 . In this model, perceived trustworthiness is the strongest component of trust ($\gamma = 0.91$) and explains 83 per cent of the total variance of trust. Co-operative behaviours explain 57 per cent of the total variance of trust and are the second strongest component of trust ($\gamma = 0.75$).

Structural models	γ	Error	R^2	χ^2	GFI	AGFI	RMSEA	RMR	CFI	PGFI	PNFI
<i>Trust</i>				2.41(df=2; $p = 0.30$)	0.99	0.95	0.04	0.04	0.99	0.20	0.32
Propensity to trust	0.31	0.88	0.12								
Perceived trustworthiness	0.91	0.31	0.73								
Co-operative behaviours	0.75	0.65	0.45								
Monitoring behaviours	-0.25	0.95	0.05								
<i>Conceptual model</i>				137.47(df = 102; $p = 0.01$)	0.87	0.82	0.06	0.10	0.84	0.65	0.60
<i>Modified model</i>				122.27(df = 101, $p = 0.07$)	0.89	0.84	0.04	0.08	0.88	0.65	0.61
Perceived task performance	0.28	0.73									
Team satisfaction	0.35	0.65									
Attitudinal commitment	0.25	0.75									
Continuance commitment	0.60	0.40									
Trust \rightarrow perceived task performance	0.17										
Trust \rightarrow team satisfaction	0.16										
Trust \rightarrow attitudinal commitment	0.38										
Trust \rightarrow continuance commitment	-0.27										
Team satisfaction \rightarrow perceived task performance	0.50										

Table III.
Fit indices for the
structural models

With $\gamma = 0.32$, propensity to trust explains 10 per cent of the variance of trust. Monitoring behaviours, as expected, relates negatively with trust ($\gamma = -0.25$). All these structural relations were statistically significant (t -values > 1.96).

The conceptual model was tested with five latent variables; trust, perceived task performance, team satisfaction, attitudinal, and continuance commitment. The results for this model indicate only a marginal fit to the data (see Table II). The χ^2 is significant ($\chi^2 = 137.41/\text{df} = 102, p = 0.01$), the other fit indices show values lower than 0.90, and the residual fit indices indicate values above > 0.05 , which is consistent with the poor fit of this model. The modification indices suggested a path from perceived task performance to team satisfaction to improve the fit. In others studies (e.g. Gladstein, 1984; Smith and Barclay, 1997) team performance is found to be a strongly related to team satisfaction.

The modified model shows a considerable improvement of fit (see Table III). In particular, the χ^2 becomes non significant and the residual coefficient RMSEA decreases to 0.04, which indicates a good model fit. The other indices show also improvement and GFI reaches 0.89, showing almost an adequate fit. Based on these results we considered the modified model more adequate to fit our data.

The results of the structural equations are displayed in Figure 2. Trust is positively related with perceived task performance ($\gamma = 0.17$), and team satisfaction ($\gamma = 0.16$), both confirming our *H1* and *H2*. The strongest relations are for attitudinal commitment (positive effect – $\gamma = 0.38$) and for continuance commitment (negative effect – $\gamma = -0.27$) confirming also our *H3*.

Discussion

The present study aimed to explore the nature of trust and the relation with team performance and other variables concerning team member’s attitudes towards the team and the organisation.

With respect to the nature of trust, this study supports the conceptualisation of trust as a multi-component construct. As in other studies (e.g. Cummings

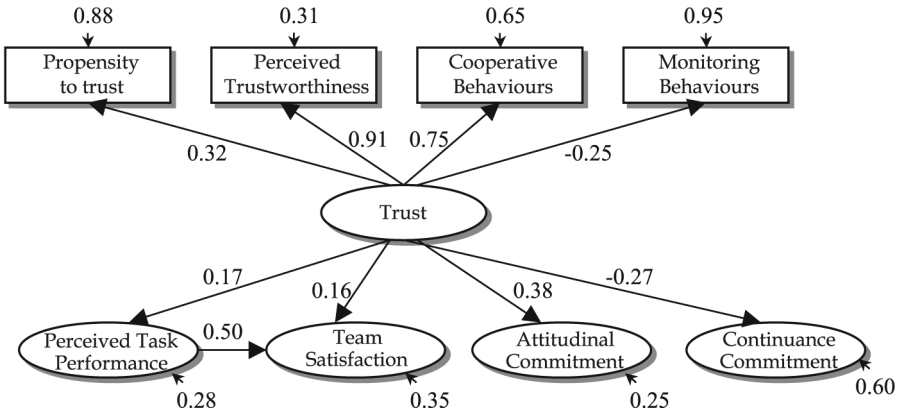


Figure 2.
Structural relations

and Bromiley, 1996; Smith and Barclay, 1997), several dimensions were identified which suggest that trust is a complex variable with a number of component parts. Although our components cannot be directly compared with those found in other studies, our results support the distinction between propensity, trustworthiness and behaviours of trust often proposed in the literature as dimensions of the trust construct (e.g. Mayer *et al.*, 1995). Perceived trustworthiness was the strongest component of trust. This is consistent with the dominant way of thinking in the literature about trust and “trustworthiness” – the evaluation of the characteristics and actions of the person(s) to be trusted. Co-operative behaviours were the second strongest component of trust, which supports in particular the incorporation of behaviours in models of trust. Monitoring behaviours, though, explained the least variance of trust. Propensity to trust explained also only a small percentage of the total variance of trust within teams. However, we consider that both components still should be viewed as important aspects of trust. Since we were dealing with teams where members are working together already for some years, trust between these members may be more based on attributions of trustworthiness made to one another than on general expectancies. As suggested by Bigley and Pearce (1998), different components can be more important in some contexts than others, depending on the degree of familiarity between individuals and the degree of dependence. For instance, Rotter (1980) argues that as situations or people become increasingly unfamiliar the influence of trusting dispositions on behaviour grows.

Except for monitoring behaviours, all components appeared positively related with the trust factor. This is consistent with the notion that trust excludes the deliberate control of others (Ikpen and Curral, 1997). However, teams may demand different requirements for co-operative behaviours and monitoring behaviours depending on various issues such as, work objectives, risks involved, amount of resources committed, etc. (Das and Teng, 1998). For instance, Bijlsma-Frankema (2000) found a positive relation between monitoring and trust in managers in general hospital a case study. Consequently, a high level of trust may not automatically dictate an increase of co-operative behaviours and a lowering of monitoring behaviours. In situation where the risk of trusting is high, monitoring may become a base for trust.

The relation between trust and the dependent variables in this study confirms the idea that trust is important for the functioning of teams in organisations. Consistent with other studies (e.g. McAllister, 1995; Morgan and Hunt, 1994; Smith and Barclay, 1997) various benefits were associated with trust. These benefits are reflected not only in the team outcomes, but also in member's attitudes to the organisation. High work team indicates high perceptions of task performance, high team satisfaction, high attitudinal

commitment and low continuance commitment. In relation to task performance, our findings support the main effect between trust and performance also found in similar studies examining trust in other contexts (e.g. McAllister, 1995; Smith and Barclay, 1997). The conceptualisation of trust as a higher-order construct as we present here provides a clearer picture in relation to these effects, since distinct components of trust are incorporated in one single variable. Also consistent with other studies, a positive relation was obtained between trust and team satisfaction (e.g. Smith and Barclay, 1997). However, team satisfaction was more strongly related with perceived task performance. This suggests that the overall positive relation of trust has some limitations.

Work team trust was particularly strongly associated with the committed with the organisation. When work team trust is low, levels of attitudinal commitment tend to decrease, while more calculative (continuance) commitment tends to arise. Such implications can bring additional problems, for instance in contexts of change when additional levels of effort and involvement are needed to successfully implement those changes.

Generally speaking, this study indicates that trust is an important condition for the functioning and well being of teams in organisations. Yet, the extent to which trust may be considered a determinant factor in this functioning remains inclusive, since it is dependent on the trust requirements that are associated with the functioning of teams and organisations.

Limitations of the study and directions for future research

This study represents a step forward in establishing a multi-component conceptualisation of trust and in theory building on trust in organisations. Although our study was successful in using aggregated data, several limitations are associated with these results. The foremost limitation is the number of teams in our sample ($n = 112$). Despite the fact that we were able to obtain a sufficient number of teams to perform SEM analyses, the complexity of the model led to initial GIF situated in the marginal acceptance zone. Therefore, our conclusions should be carefully interpreted. Another limitation refers to the fact the teams in this study came from organisations within a single sector of activity, which makes it inappropriate to generalise these conclusions to other sectors of activity. Cautions in the interpretation of these results are also associated with the use of self-ratings of task performance.

Directions for future research

The idea that trust has numerous benefits for teams and organisations has been, and continues to be, a major impetus for research on trust. Over the past decades, researchers have increasingly recognised the importance of trust at individual, team and organisational levels. However, empirical evidence has generally, but not consistently, supported this perspective. Different approaches to the concept of trust have lead to several conceptualisations

and operational measurements of the variable trust that can lead to some inconsistencies across research findings. Further research should address these differences. Work team trust and effectiveness

One variable that may have influenced the results in this study, is the risk associated with poor performance. In some organisations deficits in trust reduce efficiency, in others it reduces effectiveness and increases costs, or even makes the organisation fail. Within contexts with relatively low risk of poor performance, such as the teams in our study, we have seen that co-operative and monitoring behaviours operate as two opposite ends of the same continuum with respect to trust. However, in contexts where poor team performance may bring damaging effects for the organisation, monitoring behaviours may be actually necessary in order to prevent destruction. The relation between trust and risk seems a key issue in the behavioural manifestations of trust.

Another key variable refers to the life cycle of the team and degree of familiarity between team members. For example, in teams that are created for a specific project and that exists for a fixed period of time (such as project teams), individual members will have the tendency to identify more with the product being performed, than with their colleagues. On the other hand, in multi-project organisations, teams become a much more dispersed notion, and individuals might have difficulties in identifying to which team they belong. While studying trust and its implications for the functioning of teams and organisations, researchers should also address the contextual variables around trust, in order to provide better interpretations of the results.

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