

## The relationship between trust, HRM practices and firm performance

Shay S. Tzafrir

**Abstract** Numerous researchers have begun to examine organizational trust and its influence on the workforce. However, little empirical research has focused on the conditions that engender organizational trust – those that make managers more willing to accept the vulnerability inherent in certain managerial actions that are part of human resource management. This study evaluates the trust mechanism and the way HRM practices mediate its impact on improving organizational performance. One hundred and four HR managers from the leading companies in the Israeli industrial, service and trade sectors, based on sales and operating revenue, completed questionnaires. Overall, we found that HR managers are more likely to offer training and shape the internal promotion system when trust is high. In addition, we found that firms exhibited higher organizational performance when trust is high. The paper also presents some of the model's implications.

**Keywords** Trust; human resource management; performance.

### Introduction

Trust is a key component of organizational relationships, and management's approach to the issue of trust is of academic and practical significance. A rapidly growing body of literature recognizes that trust represents a significant variable that influences organizational productivity (Kramer and Tyler, 1996; Lewicki *et al.*, 1998; Mayer *et al.*, 1995; Mayer and Davis, 1999; Prusak and Cohen, 2001). Much research literature focuses on ways of developing and enhancing trust among employees (Gambetta, 1988; Gould-Williams, 2003; McKnight *et al.*, 1998), suggesting that organizations view trust as a desirable attribute. For example, Konovsky and Pugh (1994) have shown that trust in managers is positively associated with organizational citizenship behaviour in a social exchange process. In a similar vein, Aryee and his colleagues found that trust in the organization is related to work attitudes and job satisfaction (Aryee *et al.*, 2002).

Despite extensive theoretical and empirical research on trust, investigators have yet to study managerial perceptions of trust in employees. A number of researchers have theorized that positive managerial expectations may translate into managerial behaviours such as providing training, and permitting participation in decision-making (Liden *et al.*, 1993). Extensive research has begun to examine organizational trust and its influence on the workforce (Mayer and Davis, 1999; Spreitzer and Mishra, 1999). Likewise, studies have looked at the effects of technical and social conditions on workplace trust (Blunsdon and Reed, 2003). However, little empirical research has focused on the antecedent conditions that can lead managers to accept the inevitable vulnerability that comes with

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managerial actions that are part of human resource management. Thus, the major objective of this study is to develop a framework for examining the impact that managerial trust in employees has on human resource management practices as well as on firm performance, and then to examine the implications of the model using real-life data.

### Theory and hypotheses

Trust is domain specific (Zand, 1972), and therefore, we need to understand trusting behaviour within a specific context (Johnson-George and Swap, 1982; Zeffane and Connell, 2003). Tzafirir and Dolan (2004) found that the construct of trust in an employment relationship was thought to be three-dimensional, composed of harmony, reliability, and concern (HRC). The first dimension, reliability, suggests that a trusting party has positive expectations about consistency between the words and action of the party to be trusted (Butler, 1991; Gabarro, 1978). The second dimension of trust, concern, refers to the idea of self-interest being balanced against another party/ies' interests (Mishra, 1996). Finally, the third dimension, harmony, denotes the idea of having a collective identity and commonly shared values (Lewicki and Bunker, 1996). Summarizing the above, we define trust in this study as the willingness to increase the resources invested in another party, based on positive expectations resulting from past positive mutual interactions.

### Social exchange theory

Many theories of trust are grounded in social exchange theory (Whitener *et al.*, 1998), which assumes that trust emerges through the repeated exchange of benefits between two parties. Social exchange (Blau, 1964) is based on the norm of reciprocity that dictates that we help and not harm those who help us (Gouldner, 1960). This norm establishes the expectations that recognition, empowerment, investment in human assets, and other favours will be returned. Of course, the norm of reciprocity has a negative side as well, which includes the expectation that hostilities, fear, insincerity, and other distrusting acts will be dealt with in kind. As Lewis and Weigert (1985: 971) point out: 'when we see others acting in ways that imply that they trust us, we become more disposed to reciprocate by trusting in them more. Conversely, we come to distrust those whose actions appear to violate our trust or to distrust us.' Taken together, the dynamics of the exchange between participants in the interaction and the need for all sides to rely on the good will and obligation of other may create an uncertainty reaction (especially in the beginning of an exchange). Thus, providing benefits is a voluntary action.

Social exchange emphasizes relationship development over time, and indicates that a successful social exchange circle involves trust and uncertainty. Social exchange behaviour generates an expectation of some future return of Joint improvement and positive contribution to the relationship. Mintzberg and Waters (1985) note that managers, through their strategic decisions, play a key role in shaping organizations. Prusak and Cohen (2001) suggest that managers could strategically develop trust by showing trust themselves, as well as by rewarding trust and sending clear reliable messages to employees. Indeed, these behaviours demonstrate the type of managerial decisions that create human resource management (HRM) strategies and practices capable of generating sustained competitive advantages (Barney, 1991).

Trust of top management in the workplace is based more on the outcomes of organizational decisions and less on interpersonal character (McCauley and Kuhnert, 1992). Thus, dealing with trusting behaviour in the employment relationship must involve the organization's human resource (HR) system. The HR system represents the

relationships, interaction and messages between employer and employees, as well as the organization's philosophy. In this study, we extend the research on HR decisions, focusing exclusively on managers' trust in their employees. It seems reasonable to suggest that when there is trust between managers and employees, the managers will be more willing to engage in risky decisions (Mayer *et al.*, 1995). The managers know that their employees will not take unfair advantage of them.

### **Trust and HRM practices**

Managers are the primary designers of organizational structure, strategies and activities (Creed and Miles, 1996). Managerial philosophies, attitudes, and perceptions of their employees shape the organizational mechanisms utilized (Ordiz-Fuertes and Fernandez-Sanchez, 2003). Yet, Miles and Creed (1995) emphasized that managerial philosophies evolve over time, along with managerial attitudes and perceptions. Thus, managers' trust in their employees could have a great impact on managerial decision-making processes such as the design of the HRM system. Investigating the role of managerial trust in employees, Creed and Miles (1996) acknowledge that whatever the level of trust or mistrust evident in managers' actions, it may well be reciprocated. Moreover, Shore *et al.*'s (1995) work on managerial perceptions found that managerial judgements about employees have a significant impact on the managers' treatment of employees. We identified four formal HR practices that are both universal (Delery and Doty, 1996; Pfeffer, 1994) and influenced by the degree of managerial trust in employees. These are (1) incentive compensation; (2) employee participation; (3) internal labour market; and (4) training.

**Compensation** Expectancy theory emphasizes the perceived link between pay and behaviours. Managers believe that high employee performance followed by an incentive reward system will make future high performance more likely. Indeed, Delaney and Huselid (1996) find that a compensation system based on excellence results in increased employee performance. In addition, Kaufman (1992) notes that a profit sharing system increases productivity and contributes to improved performance by, among other things, decreasing absenteeism. In the practice of compensation, the aspect of trust that comes into play is that of expectation over time. A high level of trust creates an atmosphere in which managers expect to gain high employee performance, which, in return, requires managers to provide higher pay. In addition, managers with high trust perceptions of their employees will be more willing to increase their risk with various incentive compensation plans.

*Hypothesis 1:* Managers are more likely to offer incentive compensation plans when trust is high.

**Employee participation** McAllister (1995) argues that interpersonal trust is a key mechanism of organizational co-ordination and control. Employee participation involves subordinates making decisions, and as a result, mistakes will inevitably occur. By allowing employees freedom of action, managers extend their dependency on their employees as well as increase their risk. Yukl (1994) notes that delegation requires trust and perceptions of competence on the part of the leader, because delegation always involves risk for that individual (Mayer *et al.*, 1995). Gibb (1965) argues that trust is a key factor in managerial decision-making processes. Along these lines, Stewart (1986) points out that one of the bases for true and effective employee participation is trust.

Gomez and Rosen (2001) find that managerial trust influences employees' perceptions of empowerment via manager-employee relationships. In sum, managers take risks and become vulnerable by sharing their power with their employees. However, managers must trust their employees before they decide to open themselves up to this type of risk. Thus, the higher the managers' trust in their employees, the greater the delegation of power will be. Therefore:

*Hypothesis 2:* Managers are more likely to allow employees to participate in decision making when trust is high.

**Internal labour market** The internal labour market (ILM) implies a one-dimensional exchange process (Baron and Kreps, 1999), whereby managers who trust their employees are more likely to promote them. In return, they expect to gain increased performance. Indeed, researchers have found that the opportunity for career development offered by an organization to its employees correlated positively with organizational performance (Blackwell *et al.*, 1994). In this practice, the interdependence aspect of trust comes into play. Managers may suffer substantial costs if an employee promoted within the organization does not reciprocate the confidence placed in him. A manager's willingness to promote from within the organization will be predicated on his or her perceptions and expectations about whether the employee will reciprocate. A manager with a high level of trust in his employees will be more willing to promote from within the organization. Therefore:

*Hypothesis 3:* Managers are more likely to use internal promotion (ILM) when trust is high.

**Training** Training can be treated as an investment in organizational human assets. Firms that offer training and employee development are making a visible investment in employees. Among its positive outcomes, this investment increases employability for the individual employee (Waterman *et al.*, 1994). According to exchange theory, this investment can create in employees a moral obligation to see that the organization gets its money's worth. However, generalized skills training and development also increase organizational risk, because employees may decide to leave the organization. Indeed, managers may incur a considerable expense by extending training activities if the employee does not reciprocate. As such, managers with a high level of trust in their employees are willing to invest in employee training more than managers with a low level of trust are.

*Hypothesis 4:* Trust will be positively related to training; therefore, the higher the level of trust, the larger the number of employees who receive training activities.

**HRM practices and firm performance** As traditional sources of competitive success have waned, the significance of human resources has increased. Investigators now consider human resources to be both a tangible as well as an intangible part of an organization's resources, with the potential to ensure continuous organizational success (Lado and Wilson, 1994). The prevailing universal perception maintains that some HRM activities are better than other ones and, therefore, organizations should identify and adopt these activities (Pfeffer, 1994; Osterman, 1994). A substantial body of research has examined the impact of HRM practices on firm performance, and positive relationships

were found (Boselie *et al.*, 2001; Delaney and Huselid, 1996; Delery and Doty, 1996; McElroy, 2001). Deok-Seob (2001) noted that HRM itself becomes an important strategic management tool during periods of economic recession. In addition, Delaney and Huselid (1996) found that HR practices were positively related to firm performance. Consequently, we postulate that:

*Hypothesis 5:* HRM practices will be positively related to perceived organizational performance.

## Method

### Sample

The analysis in this study deals with practices, attitudes and performance at the organizational level. The organizations included in this research were selected from a sample of 275 organizations from both the public and private sectors, each employing 200 or more workers. Companies with fewer than 200 employees were excluded from the sample, because such companies often lack a formal organizational unit for handling human resources. Following Osterman's (1994) studies, the sample was drawn from organizations that were included in the *Duns Guide Israel 2000*, the Israeli Business Directory. The *Duns Guide* lists the leading companies in the Israeli industrial, service, and trade sectors based on sales and operating revenue.

Questionnaires were completed by 104 of the 275 designated companies at the end of the fiscal year of 2000, resulting in a response rate of 38 per cent. This response rate is above the average for this level of organizational representation, as found by Baruch (1999). In organizations lacking such HR executives, the interview was conducted with the CEO or with the most senior manager dealing with human resources in the organizations. We chose to interview the HR managers for three reasons. First and most importantly, HR managers have the greatest access to data related to HRM activities. Second, as Starbuck and Mezias (1996) note, perceptual error tends to be lower if the respondent's functional area relates to the perceived variable. Third, HR managers have the largest store of knowledge about the overall activities of the organization at the macro level, as opposed to the narrow departmental level. Nevertheless, there is the risk that respondents who are directly responsible for the implementation of HRM activities might render a subjective evaluation. In an attempt to minimize as much as possible respondents' subjectivity (Becker and Gerhart, 1996), some of our questions deal only with raw data regarding HRM activities. The results of previous studies indicate that the answers of senior HR managers to questions regarding descriptive data do not differ substantially from those of senior line managers (Guest and Peccei, 1994).

Ninety-five per cent of the respondents (99) were vice-presidents or HR managers, and the remaining 5 per cent were either the owners or the company's senior managers. Forty-seven per cent of the respondents were women; 53 per cent were men. The average age of the respondents was 43.8, and the average tenure in the present position of HRM was 49 months. It is important to note that no significant correlation was found between the personal characteristics of the respondents and the dependent variable, perception of performance. As in the study by Terpstra and Rozell (1993), an analysis was made of the companies that responded as compared to those that did not. A logistic analysis was performed to determine if there were any differences between respondents and non-respondents, in which the dependent variable was whether the company was interviewed (0: not interviewed, 1: interviewed) regarding sector, number of employees, and

percentage increase in sales/income (based on the data in *Duns Guide 2000*). The results of this analysis did not reveal any significant difference between responding and nonresponding companies.

### Measurement of variables

The design of this study required four sets of measures collected from one data source. The first set of measures was intended to assess HRM characteristics and practices, the second set of measures was related to organizational infrastructure data, the third set of measures comprised organizational and employee performance indicators, and the final set measured HR managers' trust in their employees. Either the vice president for HRM or the HR manager was the source for all data. For all variables, responses were coded such that higher scores indicated a more 'positive' response.

### Dependent variables

The dependent variable in this research is *organizational performance*. Mahoney (1984) argues that because of interactions and dependencies in the work process, organizational performance is not a simple sum of individual or unit performance or productivity. Becker *et al.* (2001) notes that strategic HRM is a goal-directed process, and for research to accurately measure effectiveness, it must evaluate the degree to which the process meets the goals set for it. In a similar vein, Dyer and Reeves (1995) introduces three organizational effectiveness categories designed to evaluate strategic HRM: HR outcomes, organizational outcomes, and financial/accounting outcomes.

The dependent variables in this research, as in Delaney and Huselid (1996), measure the perception of an organization's performance in relation to its competitors. Using eleven questions, we developed two variables. The first variable, organizational performance, consists of seven questions for which to answer respondents had to evaluate the quality of their organization's performance as compared to that of competing organizations performing the same work over the past year ( $\alpha = .77$ ). This variable covered several aspects, such as the quality of the product/service, new product development, the ability to attract and retain essential employees, customer satisfaction, etc. These aspects are among the most important for measuring organizational performance, in addition to traditional accounting performance (Eccles, 1995). The second dependent variable, market performance, relevant only to market organizations, comprised four questions in which respondents evaluated the economic performance of their organization compared to that of competitors over the preceding year ( $\alpha = .72$ ). This market performance variable focuses on issues such as product price, sales increase, profitability, and so forth. Each dependent variable is based on items that are ranked on a scale ranging from 1 = much worse than others, to 5 = much better than others. These two variables, organizational and market performance, provide a broad picture of the company's overall performance. We performed a confirmatory factor analysis on the eleven rating items; this measured the two forms of performance. The result supported a two-factor structure with a normed-fit index (NFI) of .99; the root-mean-square error of approximation (RMSEA) was .04.

*Independent variables*

We measured trust using Tzafirir and Dolan's (2004) model of organizational trust. The scales are especially designed to assess the dimensions of trust in an organizational setting. All the trust scales in this study are based on five-point Likert-type items with anchors of agree and disagree for each scale point. Five items are used to measure an employee's *reliability*, employing a score ranging from 1.20 to 5.00. Cronbach's alpha for this scale was .88. The *harmony* scale consists of five items, and the alpha for this scale is .78. The scores for the harmony scale range between 1.40 and 4.80. Six items are used to measure employee *concern*, with a score range between 1.00 and 5.00. Cronbach's alpha for this scale is .81. Respondents were asked to indicate the degree to which you agree with each statement such as: employees/managers will keep the promises they make. I can count on my employees/managers to help me if I have difficulties with my job. Managers'/employees' needs and desires are very important to employees/managers. Table 3 presents the correlations among the sub-components of trust.

The following HRM practices are investigated: compensation, participation, internal labour market and training. To assess the practice of *incentive compensation*, i.e. the relationship between jobholders' income and respective job performances, we used an instrument of four items ( $\alpha = .89$ ), as in Delaney and Huselid's study (1996). Questionnaire items refer to the impact level of individual performance evaluations on the salary levels of senior managers, managers, staff employees and production/service/planning employees. Responses ranged from 1 = 'not influential', to 5 = 'very influential'. To measure *employee participation*, we adapted a five-item scale ( $\alpha = .76$ ) recently used by Harel and Tzafirir (1999). The items are meant to ascertain the degree of influence that employee rank and file have on issues such as investment in new equipment, workflow, salary determination, etc. Responses range from 1 = 'not influential', to 5 = 'very influential'. A confirmatory factor analysis was performed on the nine rating items that measured employee participation and incentive compensation. The results support a two-factor structure, with a normed-fit index (NFI) of .98; the root-mean-square error of approximation (RMSEA) was .05. As Pfeffer (1994) suggests, respondents were asked to indicate the number of employees in the organization who were promoted within the past year, relative to the number of positions filled by outside recruits. This measure is termed *internal labour market*. It indicates the importance that the organization attributes to its employees as a source of recruitment for managerial positions. *Training* was measured in this study, as in Lawler *et al.* (1992), using a six-item instrument ( $\alpha = 0.78$ ). Respondents were asked to indicate the percentage of employees in the organization who received systematic and formal generalized training in the past year in a variety of skills: leadership, business areas, quality, technical aspects of the job, etc.

*Control variables*

No organization operates in a vacuum, therefore, it is important to investigate internal and external organizational characteristics, to clarify the relationship between trust, HRM practices, and perceived organizational performance. Thus, control variables in the models include initial trust, sector, firm size and age, and union density.

Finally, the literature that deals with initial trust emphasizes the influence of a trust disposition on the organizational context (McKnight *et al.*, 1998). Thus, understanding the role of initial trust in the employment relationship and its effect on the psychological contract (Robinson, 1996) may help identify organizational needs. Initial trust is

measured using five items, from the propensity to trust scale developed by Mayer and Davis (1999). Cronbach's alpha for this scale is .61. The measure of the reliability of the disposition-of-trust measure in this sample did not reach .70. However, the alpha is similar to Mayer and Davis' (1999) results. They found, in a similar construct, a Cronbach alpha of .55 and .66 for their second and the third waves, respectively.

The study uses a dummy variable to indicate whether the organization belonged to the public or private sector. *Firm size* and *firm age* are included as controls, because they may be related to high performance work practices (Delaney and Huselid, 1996) as well as to organizational performance (Guthrie, 2001). A natural logarithm was calculated using the number of the organization's employees and its years of existence (i.e. 2001 minus the founding year), respectively. In order to deal with the institutionalization effect (Boselie *et al.*, 2003) and due to the large amount of validated research evidence (Freeman and Medoff, 1984) with regard to the impact of unions and union density on organizational performance, we measured *union density*.

## Results

We tested the study's hypotheses in several ways. First, we checked the accuracy of managers' perceptions of other objective organizational data. Second, we analysed the correlation between the control variables and the dependent variables. Third, we examined the intercorrelations among the research variables. Fourth, advanced statistical analyses were conducted to explore the research model.

Starbuck and Meziars (1996) question whether managers' perceptions are realistic. They suggest that comparing their assessments of objective and subjective data might clarify the issue (Guest, 2001: 115). They also suggest 'researchers use "objective" data that are more relevant to managers' perceptions'. Table 1 presents the correlations between perceived organizational performance, financial performance, and employee behaviour.

The results indicate that the perceptions of the managers regarding their organizational performance significantly correlated with objective measures of firm performance. The results shown in Table 1 demonstrate that perceived organizational performance correlated positively and significantly with organizational current ratio ( $r = .49, p < .01$ ), as well as with return on assets ( $r = .25, p < .10$ ). In addition,

**Table 1** Correlation results between perceived organizational performance and objective performance<sup>a</sup>

Variable	1	2	3	4	5	6	7
1. Perceived org. performance	1.00						
2. Perceived market performance	.43**	1.00					
3. Current ratio	.49**	.21	1.00				
4. Return on assets	.25 <sup>+</sup>	.46*	.71**	1.00			
5. Return on equity	.21	.45**	.32 <sup>+</sup>	.66**	1.00		
6. Net profit	.09	.50**	.91**	.90**	.69**	1.00	
7. Voluntarily quit	-.36**	-.34**	-.15	-.40*	-.39*	.020	1.00
8. Unapproved absenteeism	-.74**	-.47**	-.29 <sup>+</sup>	-.12	-.02	-.119	.40**

### Notes

<sup>a</sup>N = 104 and N = 30 for variables 3 to 6 because we found useful data for only 30 companies in the stock market archive.

<sup>+</sup>p < .10; \*p < .05; \*\*p < .01.



the results show that perceived organizational performance is negatively and significantly related to both employees' voluntary quitting ( $r = -.36, p < .01$ ), and employees' unapproved absenteeism ( $r = -.74, p < .01$ ). Furthermore, significant and positive correlations are found between perceived organizational market, the dependent variable here, and return on assets ( $r = .46, p < .05$ ), return on equity ( $r = .45, p < .01$ ), and net profit ( $r = .50, p < .01$ ). A negative and significant correlation is demonstrated between perceived organizational market and both employees' voluntary quitting ( $r = -.34, p < .01$ ), and employees' unapproved absenteeism ( $r = -.47, p < .01$ ). Given that the results report a strong correlation between managers' perceptions of organizational performance and objective measures of firm performance, we conclude that the managerial perceptions in our sample are realistic.

The descriptive statistical analyses of the variables used in the hypotheses tests are presented in Table 2. The pair analysis provides a direct picture of the relationship between trust and each of the separate HRM practices and the perceptions of firm performance. Results also indicate relationships between various HRM practices. This, then, gives a better understanding about the possible fit among these practices.

To assess further the relationship among the variables prior to hypothesis testing, we determined whether any of the research variables correlated with any of the control variables. With the exception of organizational size, no significant correlation was found among these variables.

Hypotheses 1 to 4 concern the relationships between HRM practices and managers' trust in their employees. The results of the study indicate that organizations that exhibited high managerial trust in employees based their compensation systems on performance ( $r = .46, p < .01$ ), encouraged employee participation ( $r = .59, p < .01$ ), used the internal labour market for employee recruitment and mobility ( $r = .49, p < .01$ ), and invested more in training ( $r = .60, p < .01$ ) than did non-trusting firms. Hypothesis 5 concerns the relationship between HRM practices and organizational performance. Results indicate that organizations that invested more in training ( $r = .66, p < .01$ ), based compensation on performance ( $r = .38, p < .01$ ), encouraged employee participation ( $r = .57, p < .01$ ), and used the internal labour market for the purpose of recruitment and employee mobility ( $r = .56, p < .01$ ), demonstrated significantly higher organizational performance. The second dependent variable, market performance, was found to be related significantly to compensation ( $r = .37, p < .01$ ), internal labour market ( $r = .30, p < .01$ ), training ( $r = .47, p < .01$ ), and employee participation ( $r = .39, p < .01$ ). In addition, to test the hypotheses regarding the trust dimensions, we separately correlated each of the three dimensions of trust with the HRM practices (see Table 3). In general, the hypotheses that posit a positive correlation between dimensions of trust and HRM practices were confirmed. Overall, this set of hypotheses was moderately well supported. The results of the bivariate correlation analysis show that perceived organizational and market performance were positively associated with dimensions of trust. For example, the correlation between perceived organizational performance and the three factors of trust were all positive and significant.

To understand the association between all the study's variables better, we carried out several more analysis steps. We analysed the data using the AMOS structural equation modelling software. We also followed Bollen's (1990) recommendation to examine multiple indices of model fit, since it is possible for a model to be adequate on one fit index but inadequate on many others. We based our selection of indices on the recommendations of Muller (1996) and Hu and Bentler (1995). They recommended using the chi-square statistic, the comparative fit index (CFI), the goodness-of-fit index

Table 2 Means, standard deviations, and correlation for all variables<sup>a</sup>

Variable	Mean	s.d.	Range	1	2	3	4	5	6	7	8	9	10	11	12
1. Perceived organization performance	3.90	0.56	1-5	$\alpha = .77$											
2. Perceived market performance	3.73	0.68	1-5	.43**	$\alpha = .72$										
3. Trust	3.99	0.57	1-5	.73**	.58**	$\alpha = .91$									
4. Compensation	3.62	1.15	1-5	.38**	.37**	.46**	$\alpha = .89$								
5. Participation	4.44	1.24	1-7	.57**	.39**	.59**	.39**	$\alpha = .76$							
6. Internal labour market	67.7	30.8	%	.56**	.30**	.49**	.12	.40**							
7. Training	4.37	1.37	1-7	.66**	.47**	.60**	.32**	.58**	.49**						
8. Evaluation	3.84	0.89	1-5	.17	.29*	.21+	.36**	.23+	.09	.21+					
9. Firm age	23.4	20.5	#	.09	(.04)	.08	(.30)**	-.10	(.10)	.00	(.10)				
10. Firm size	6.01	0.78	#	.08	.27*	.19+	.11	.10	.07	.20+	.09	.01			
11. Union density	18.6	33.8	%	(.03)	(.02)	.01	(.19)+	(.19)+	(.11)	.10	(.18)	.39**	.38**		
12. Sector	0.81	0.39	0 or 1	.02	(.06)	(.06)	(.07)	(.08)	(.05)	(.09)	.01	.07	(.19)*	(.23)*	
13. Initial trust	.350	0.51	1-5	.01	.19	.10	.06	.07	.02	.06	(.19)	(.10)	.11	.14	.04

Notes

<sup>a</sup>N = 104.

\*p < .10; \*\*p < .05; \*\*\*p < .01 (minus).

Table 3 Correlation results of dimensions of trust and HRM practices<sup>a</sup>

Variable	1	2	3	4	5	6	7	8	9
1. Harmony	$\alpha = .78$								
2. Concern	.67**	$\alpha = .81$							
3. Reliability	.68**	.59**	$\alpha = .88$						
4. Compensation	.40**	.38**	.41**						
5. Participation	.58**	.50**	.48**	.39**					
6. ILM	.53**	.41**	.38**	.12	.40**				
7. Training	.60**	.52**	.47**	.32**	.58**	.49**			
8. Evaluation	.27*	.29*	.01	.36**	.27 <sup>+</sup>	.09	.08 <sup>+</sup>		
9. Organization performance	.72**	.60**	.63**	.38**	.57**	.56**	.66**	.29*	
10. Market performance	.58**	.45**	.44**	.37**	.39**	.30**	.47**	.17	.43**

Notes

<sup>a</sup>N = 104.

<sup>+</sup>p < .10; \*p < .05; \*\*p < .01.

(GFI), the normed fit index (NFI), and the non-normed fit index (NNFI). We followed Anderson and Gerbing's (1988) suggestions for a two-stage analysis process, and conducted confirmatory factor analysis (CFA) before structurally analyzing the model. Moreover, the significant correlations among the trust dimensions made it more important to perform a CFA on the sixteen items representing the three trust factors of harmony, concern, and reliability.

Table 4 presents values of the chi-square statistic and the CFI obtained for our three-factor trust model, as well as many other overall fit indices produced by the AMOS 4.0 program. The overall chi-square is significant ( $\chi^2 = 162.85$ ,  $df = 101$ ,  $p < .00$ ), indicating that the model does not adequately account for the observed covariation among the variables. However, this is expected, given this statistical method's sensitivity to sample size (Bagozzi and Yi, 1988). Loehlin (1998) and Bandalos (1996) note that the chi-square statistic used in a CFA is very sensitive to sample size, so that with a large enough sample size, almost any hypothesis would be rejected. Nevertheless, the solution does a reasonably good job of accounting for the data.

The NFI, CFI, and NNFI are well above .90, the criterion used by many researchers as an indication of a very good fit (Bandalos, 1996). In addition, the root-mean-square error of approximation (RMSEA) of 0.08 suggests that the factor model represents a good approximation (Arbuckle and Wothke, 2001). It may be that the significant chi-square value is due, at least in part, to the large sample size, rather than to any substantial misspecification of the model. Examination of the standardized regression estimate weights indicates that all of the sixteen items are highly significant. Therefore, we conclude that this model fits the data well (CFI = .99) and meets the established criteria for distinctiveness; for example, items loaded significantly on only one construct.

The second step of the analysis was to run structural models depicting the relationships between the research variables as stated in the hypotheses. We tested the hypotheses using two models. First, we modelled the proposed direct relationship between trust dimensions and HRM practices as well as between HRM practices and perceived organizational and market performance. Next, we tested a revised model that corrected the initial model based on inspection of modification indices.

Table 5 reports the change in chi-square and other fit indexes, revealed by a comparison between the two perceived organizational performance models, as recommended by Browne and Mels (see Arbuckle and Wothke, 2001: 416). According to the structural equation analysis, the initial model measuring perceived organizational performance fit the data poorly-to-moderately, as was indicated by a significant chi-square value of 53.79 ( $df = 13$ ,  $p < .00$ ). In addition, the goodness-of-fit index (GFI) is .88, the adjusted goodness-of-fit index (AGFI) is .59, the normed fit index (NFI) is .87, the comparative fit index (CFI) is .89, and the root-mean-square error of approximation (RMSEA) is .18. The revised model fit the data adequately, as indicated by an insignificant chi-square value of 20.4 ( $df = 16$ ,  $p > .20$ ). Keats and Hitt (1988) note that an overall chi-square goodness-of-fit test with a  $p$ -value actually exceeding .10 indicates that the model was well specified. In addition, Table 5 shows the following values:

Table 4 Goodness-of-fit results<sup>a</sup>

Model	$\chi^2$	df	p	CFI	NFI	NNFI
Measurement model	162.85	101	.00	0.989	0.971	0.985

Notes

<sup>a</sup>CFI = comparative fit index, NFI = normed fit index, NNFI = non-normed fit index.

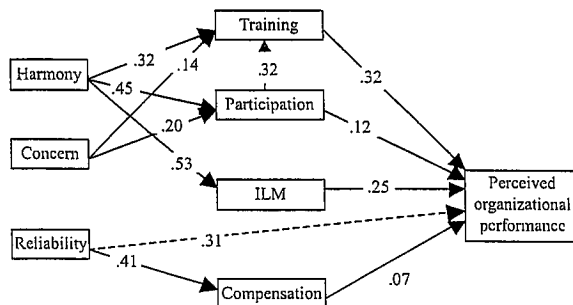
**Table 5** *Perceived organizational performance model comparison*

Model	$\chi^2(df)$	CMIN/DF	FMIN	FO	RMSEA	PCLOSE	MECVI	GFI	NFI	CFI
Initial	53.79(13)**	4.138	0.572	0.434	0.183	0.000	1.334	0.88	0.87	0.89
Revised	20.43(16)	1.277	0.217	0.047	0.054	0.417	0.908	0.96	0.95	0.99

the GFI = .96, the AGFI = .88, the NFI = .95, the CFI = .99, and the RMSEA = .05. Finally, since the rank conditions of the model (Bollen, 1990) were satisfactory, we conclude that there are no critical identification problems in the model. In comparing the initial model with the revised model, the revised model shows the best fit, meeting or exceeding the .90 threshold on a wide range of goodness-of-fit measures.

Examination of the standardized parameter estimates indicate that more than half of the hypothesized relationships are significant and in the directions predicted (see Figure 1). Specifically, a statistically significant parameter estimate was found for the path between internal labour market and organizational performance ( $b = .25, p < .01$ ), and for the path between training and perceived organizational performance ( $b = .32, p < .01$ ), and for the path between training and participation ( $b = .32, p < .01$ ). As expected, evaluation, compensation and participation are positively associated with perceived organizational performance, but fails to have a significant effect. Consistent with Hypotheses 1 to 5, the results of the analysis suggest that the trust dimensions (except reliability on employee evaluation) have a significant and positive impact on HRM practices. A statistically significant parameter estimate was found for the path between harmony and training ( $b = .32, p < .01$ ), participation ( $b = .45, p < .01$ ), ILM ( $b = .53, p < .01$ ), and evaluation ( $b = .36, p < .01$ ). The results also suggest that concern has a significant and positive influence on participation ( $b = .20, p < .08$ ) and evaluation ( $b = .30, p < .05$ ). Finally, reliability had a significant effect on compensation ( $b = .41, p < .01$ ), and evaluation ( $b = -.43, p < .01$ ).

AMOS displays a squared multiple correlation for each variable. A variable's squared multiple correlation is the proportion of its variance that is accounted for by its predictors (Arbuckle and Wothke, 2001: 119). HRM practices and trust variables together explain 62 per cent of the variance in perceived organizational performance. The trust variables together explain 36 per cent of the variance in employee participation, 28 per cent of the variance in internal labour market, and 19 per cent of the variance in employee evaluation. In addition, reliability and evaluation together explain 30 per cent of the variance in



**Figure 1** *Revised perceived organizational performance model<sup>a</sup>*

**Table 6** Perceived market performance model comparison

Model	$\chi^2(df)$	CMIN/DF	FMIN	FO	RMSEA	PCLOSE	MECVI	GFI	NFI	CFI
Initial	52.89(21)**	2.519	0.563	0.339	0.127	0.003	1.382	0.90	0.86	0.90
Revised	21.64(24)	0.902	0.230	0.000	0.000	0.831	0.977	0.96	0.94	1.00

incentive compensation. Finally, harmony, concern, and employee participation together explain 45 per cent of the variance in training.

Turning to perceived market performance, Table 6 reports the change in chi square and other fit indices, revealed by comparing the two perceived market performance models, as recommended by Browne and Mels (see Arbuckle and Wothke, 2001: 416). The initial measurement of the perceived market performance model fit the data poorly-to-moderately, as indicated by a significant chi-square value of 52.89 ( $df = 21, p < .00$ ). In addition, the following values are found: GFI = .90, the AGFI = .73, the NFI = .86, the CFI = .90, and the RMSEA = .13.

The revised model fit the data adequately, as indicated by an insignificant chi-square value of 21.64 ( $df = 24, p > .60$ ). Keats and Hitt (1988) note that an overall chi-square goodness-of-fit test with a  $p$ -value actually exceeding .10 indicates that the model is well specified. In addition, Table 6 shows the following values: GFI = .96, AGFI = .90, NFI = .94, CFI = 1.00, and RMSEA = .00. Finally, since the rank conditions of the model (Bollen, 1990) are satisfactory, we conclude that there are no critical identification problems in it. In comparing the initial model with the revised model, the revised model shows the best fit, exceeding the .90 threshold on a wide range of goodness-of-fit measures. In addition, as noted by Arbuckle and Wothke (2001: 403), 'a value of the RMSEA of about .05 or less would indicate a close fit of the model in relation to the degrees of freedom'.

We found partial support for Hypothesis 6. The parameter estimate for the path between training and perceived market performance is not statistically significant using the .10 probability level ( $b = .15, p < .16$ ). Nor is the path between incentive compensation and perceived market performance statistically significant ( $b = .11, n.s.$ ). Although the paths are in a positive direction, as expected, neither employee participation nor internal labour market is found to be significant as a direct predictor of perceived market performance. Finally, consistent with previous findings in the management literature, organizational size is related to perceived market performance ( $b = .16, p < .06$ ). Taken together the results explain 38 per cent of the variance in perceived market performance. Turning to Figure 2, the result variables show that two variables, harmony and organizational size, have a significant impact on perceived market performance. The standardized parameter estimate indicates that harmony (.41) is the most important predictor of this dependent variable.

## Discussion

In this study, we evaluated both trust and HRM practices that help improve organizational performance. The overarching purpose of this study is to investigate whether managers' high trust in their employees effects HRM practices differently than managers' low trust in employees.

Our data clearly show that there are significant relationships between trust and HRM practices. Overall, HR managers with high levels of trust in their employees are more likely to shape an HRM system of 'high performance work practices' (Huselid, 1995)

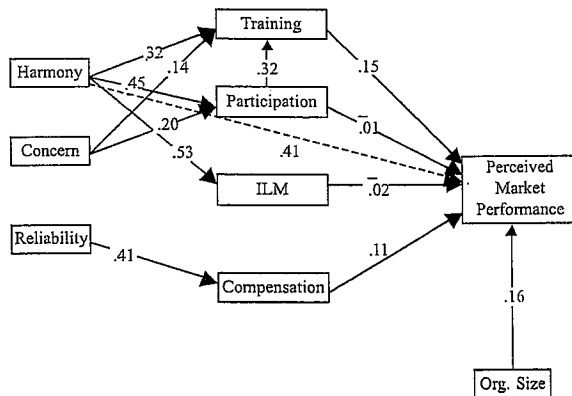


Figure 2 Revised perceived market performance model<sup>a</sup>

than are HR managers with low levels of trust. Condrey (1995) sought to determine if the level of organizational trust expressed by federal managers influenced their perceptions of performance management and recognition systems. He found that high organizational trust level could positively influence the assessment of HRM reform efforts. In the same way, Miles and Creed (1995) and Creed and Miles (1996) point out that *human investment philosophy*, i.e. the willingness to invest in employees, provides the context in which trust influences managerial philosophy and actions. Our data reflect a similar effect, supporting the view that managerial trust can lead to differential HRM practices.

Uncertainty plays a significant role in decision-making and managerial behaviour in general (Sitkin and Pablo, 1992). Meyerson *et al.* (1996: 177) note that 'faced with high uncertainty, people should be inclined either toward complete trust (1.0) or complete distrust (.0), both of which provide more certainty and use up less attention in monitoring'. Our results seem to provide evidence for the theoretical view that trust reduces uncertainty (Shaw, 1997). For example, we saw that managers with high levels of trust invest more in training, knowingly taking the risk of having employees leave the company. Although trust may be completely irrelevant when an organization provides organization-specific training, as this will not transfer well to other organizations, and thus does not make the individual more marketable to other organizations, our research measures general training. General training is more easily transferred, and hence does increase the marketability of employees and is a gamble managers have to assume.

Ackroyd and Thompson (1999), explaining the relationship between trust and HRM practices, suggest that:

there are such things as low trust and high trust managerial regimes. The former are distinguished by a generalized attitude of suspicion about the motives and actions of employees, and are often also associated with a perceived need to exert continuous surveillance over many aspects of employee behaviour. Such regimes are also very commonly associated with a dynamic process towards the development of high levels of regulation.

(Ackroyd and Thompson, 1999: 87)

According to our findings, such regimes also demonstrate a reluctance to include employee participation in the decision-making process. An interesting result of this study is the finding that harmony and concern influence the level of employee participation, which suggests that a high level of managerial trust in employees is reflected in high employee participation. This finding is consistent with Spreitzer and Mishra's (1999) research on employee involvement in decision-making, which examined forty-three firms in the US automotive industry in ninety-two business units. One possible explanation for this relationship could be that managers' trust in their employees signals a belief on their part that employees care and are concerned about the goals of the organization and the interests of the managers. It also reflects managers' acceptance of the possibility that employees have the ability to make good decisions.

As is true for all exchange relationships, each party in an employment relationship must offer something the other sees as valuable, and each must see the exchange as reasonably equitable and fair in order to continue it. For example, managers provide opportunities for employees to increase their income. Our results indicated a positive and significant relationship between reliability and incentive pay. Future research should also examine whether the relationship between managerial trust and incentive pay are mediated by employee perceptions of target performance.

Finally, one might assume that the relationship between managerial trust and HRM practices depends on the personal characteristics of the manager. To examine this assumption, we checked the personal characteristics of the respondents and found no significant differences. However, future studies need to identify the relationship between the propensity for risk-taking (Mayer *et al.*, 1995), trust, and HRM practices.

An examination of the results shown in Figures 1 and 2 suggests that reliability and harmony influence perceived organizational and market performance, respectively. One way to explain the better performance in organizations with high levels of trust is by the reciprocal effect. The reciprocal trust between manager and employee helps to make conflict about goals and interests manageable (Veen and Korver, 1998).

The results also indicated that stressing the ability of the individual had a strong predictive power for perceived organizational performance. This finding, coupled with past findings (Delaney and Huselid, 1996; Harel and Tzafrir, 1999), suggests that training should be considered a pivotal factor in terms of the relationships between HRM practices and organizational performance. Moreover, this study also demonstrates that encouraging employees to participate in the organizational effort could be an important tool for increasing perceived organizational performance. Providing employees with opportunities for advancement within the organization (internal labour market) also has a positive and significant impact on perceived organizational performance. This finding is consistent with findings of other studies, which demonstrates a positive correlation between internal careers and organizational performance, implying that greater potential for internal mobility increases employee motivation (Delery and Doty, 1996; Delaney and Huselid, 1996).

This study confirms the results of previous studies that showed that pay-for-performance has a significantly positive effect on organizational performance (Milgrom and Roberts, 1992; Stajkovic and Luthans, 2001). As Durham and Bartol (2000) mention, one of the most common ways of allocating money to improve productivity in organizations is through pay-for-performance plans.

Our examination of the variables that affect perceived market performance reveals that harmony and organizational size play a significant role in the model. Although our study fails to replicate the relationship between HRM practices and perceived market performance exhibited elsewhere (Delaney and Huselid, 1996; Harel and Tzafrir, 1999),



it is, however, consistent with other previous research findings. Delery and Doty (1996), for example, found that employee participation, training, and career opportunities did not have a significant positive correlation with return on asset and return on equity. Our findings prove very stable and consistent across a range of tests; nevertheless, our research explains only a moderate portion of the variance in perceived market performance. While the responses for training, and compensation are in the expected direction, no single item demonstrates a statistically significant influence on perceived market performance. We propose several explanations for this variance. First, as times change, the increasing competition promotes economy-of-scale strategies. Second, there may be more than one main factor directly affecting perceived market performance. Several variables, such as employees' trust in their managers, commitment, OCB, etc. might have a mediating effect. Third, it must be remembered that the universalistic approach is problematic, as outlined by Marchington and Grugulis (2000). Thus, while we use the universalistic perspective as a point of departure, we cannot exclude the possibility of another explanation, such as the contingency and the configurational perspectives (Delery and Doty, 1996). It would be interesting for future studies to examine the relationship between HRM practices, employees' trust in their managers, and market performance. We speculate that in organizations with high levels of trust, the influence of HRM practices on employee trust in their managers will yield higher perceived market performance.

The results support the view that organizational size plays a very important role in firm performance (Gomez-Mejia and Wiseman, 1997), and that its influence is particularly strong in perceived market performance. This finding may explain the fact that today many managers in organizations of all sizes are using a merging or acquisition strategy (Seth, 1990). In a similar vein, it can be assumed that larger organizations may benefit more from technological innovations than from reducing costs with quantity purchases, due to economies of scale. Christenson and Sache (1980) report that the size of government is positively related to the perceived quality of public services. Furthermore, Stanwick and Stanwick (1998) found that firm size has a positive effect on productivity.

In addition, a number of other variables could be profitably integrated into future research using the approach taken here. For example, although demographic variables did not affect our results, research has identified important trust related differences based on gender (Johnson-George and Swap, 1982). In addition, researchers have asserted that risk taking in relationships is a mediating factor between trusting antecedents and outcomes (Mayer *et al.*, 1995). In terms of future directions, research could explore the relationships between new employment approaches and trust. For example, the increased use of self-employment and subcontracting in recent years is creating a more complex work environment. Measuring trust between organizations, managers, and co-workers with these types of employees may yield interesting findings.

### **Contributions and implications**

This research contributes to the growing literature on the role of trust in the context of organizational and employment relationships. This study operationalizes a multi-dimensional conceptualization of trust and integrates it with several HRM practices and organizational performance. This study is also among the first to explore the broader effects of trust in the workplace. It looks at the relationships between trust and several mechanisms for improving organizational performance, influencing employee attitudes and behaviours, and retaining employees in the organization.

High performance work practices start with managerial philosophies and core values that emphasize the significance of employees as a source of competitive advantage (Bae and Lawler, 2000). Our research also suggests that managers' trust in their employees has a considerable impact on shaping the HRM system. Thus, to improve performance, senior managers need to hold a clear philosophy with regard to the importance of human resources to the organization's purpose, and continually invest resources to improve HRM practices (Shepbeck and Militello, 2000). Ellis (2001: 75) mentions that 'knowledge sharing still depends on people, and most people will not risk sharing what they know without a good reason of feeling of trust'. The results here complement the idea presented by Ellis, in the sense that openness is part of trust and trust enhances activities, which in turn can increase trusting behaviour, employee competence, and organizational performance.

Managers hold the key for organizations to benefit from the outcomes of these kinds of HRM practices.

The key characteristic of the human investment philosophy is a willingness to invest in education designed to enhance the technical competencies, business understanding, decision-making abilities, and the self-governance capabilities of all members of one's firm, and the willingness to make explicit investments in similar competencies across firm lines within the network. Such investments make sense only if managers have high confidence in both the educational potential of organizational members (within and across firms) and their trustworthiness.

(Creed and Miles, 1996: 30-1)

We argue that managers' trust in their employees is an important mechanism because it forms the basis on which managerial HRM decisions and policies are established. In addition, our research demonstrates the important aspects of trust in these kinds of practices, suggesting that 'make'-oriented firms (Miles and Snow, 1984) with long-term employment or high investment philosophies may enjoy better organizational performance.

Our sample includes organizations from different industries as well as from the private and public sectors. As a result, we believe that we were able to identify HRM 'universal best practices', as suggested by Pfeffer (1994). It is entirely possible that earlier studies, which only represented part of the economy's various organizations, reported results that are different from ours due to the 'partial' nature of their sample. Our sample transcends industrial and sectorial analysis and thus provides a truly 'global' picture. It makes a unique contribution, in our opinion, to the emerging empirical literature exploring the combined impact of trust on HRM practices and organizational performance.

### **Limitations**

The study has several limitations that deserve notice. The use of one respondent source is usually perceived as a limitation when sensitive data are collected. However, as Starbuck and Mezias (1996) recommend, we use objective data as much as possible and compare subjective data to objective data. In addition, using HR managers as a source of information is in line with another suggestion made by these researchers, namely, that 'researchers can use "objective" data that are more relevant to managers' perceptions' (115). Moreover, we calculate several confirmatory factor analyses in order to address the mono-method bias. Our results should also be viewed in light of the data's source. As such, we capture the level of trust of the HR managers in these organizations. However, Guest and Peccei (1994) find that the answers of line managers to questions with regard to descriptive data are not much different from those of HR

managers. Future research should collect more data from executives at these organizations.

Our results should also be considered in view of the data's limitation, i.e. data collected within a single national system with its unique national culture (Doney *et al.*, 1998). This may cast some doubt on whether it can be generalized to other countries. However, the Israeli environment provides researchers and practitioners with a convenient laboratory for studying and analysing advanced managerial practices in as much as it is a 'Madurada' (microcosm) for the developed countries of western Europe and North America (Harel and Tzafrir, 1999).

The validity of the results may be hampered by the fact that the models rely on the assumption that managers' trust in their employees' influences both HRM practices and perceived organizational and market performance, and that simultaneously HRM practices affect perceived organizational and market performance. The possibility of a reciprocal relationship between these variables cannot be excluded. Thus, one alternative explanation for our models is that perceived organizational and market performance influence both trust and HRM practices. Nevertheless, we believe that this is an unlikely explanation for the results shown in Figures 1 and 2. Future research should attempt to collect data with time lags between predictor and outcome measures in order to enable longitudinal analysis. Another limitation lies perhaps in the relatively small set of the population of HR practices used in this study. However, the sample size limits the possibility of adding more HR practices.

These and other interesting questions, which may enrich trust and human resource management, remain. Our study represents an early attempt to pinpoint the dynamics of trust and HRM practices in shaping organizational performance. By showing that trust influences HRM practices and organizational performance, we provide a window of opportunity, while at the same time revealing information about the social dimensions of HR practices and decision making.

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