

**Human Resource Practices and Organisational Performance:  
Can the HRM-performance linkage be explained  
by the cooperative behaviours of employees?**

**Dr. Mattijs Lambooi**

Researcher  
National Institute for Public Health and the environment (RIVM)  
PO Box 1,  
3720 BA, Bilthoven, the Netherlands  
Tel: 0031-30-2743722, Fax: 0031-30-2744407  
e-mail: [mattijs.lambooi@rivm.nl](mailto:mattijs.lambooi@rivm.nl)

**Prof. dr. Karin Sanders**

Professor of Work and Organizational Psychology  
University of Twente, P.O. Box 217  
7500 AE Enschede, the Netherlands  
Tel: 0031 – 53-489 4204, Fax: 0031- 53-489 3791  
e-mail: [k.sanders@utwente.nl](mailto:k.sanders@utwente.nl)

**Dr. Ferry Koster**

Researcher  
Amsterdam Institute for Advanced Labour Studies (AIAS)  
University of Amsterdam, Plantage Muidersgracht 4  
1018 TV, Amsterdam, the Netherlands  
Tel: 0031 – 20 525 7140, Fax: 0031 – 20 525 4301  
e-mail: [f.koster@uva.nl](mailto:f.koster@uva.nl)

**Drs. Marieke Zwiers**

Student  
University of Groningen,  
Grote Rozenstraat 31  
9712 TG Groningen, The Netherlands

**Human Resource Practices and Organisational Performance:****Can the HRM-performance linkage be explained****by the cooperative behaviours of employees?****Abstract**

This paper addresses the question as to whether the linkage between HRM and organisational performance can be explained by the effect of the internal and strategic fit of HRM on the cooperative behaviours of employees. We expect that the more HRM practices are aligned within themselves (internal fit) and the more HRM is aligned with an organisation's strategy (strategic fit), the better employees know what is expected of them, and the more they behave cooperatively towards their co-workers and towards their supervisor. Next, we hypothesised that the cooperative behaviours of employees are positively related to the financial and non-financial performance of the organisation. These hypotheses were tested using multilevel regression (N=723 employees; 10 organisations). We found that cooperation with co-workers is negatively related to turn over and positively related to sick leave. No support was found, however, for the hypothesis that a better internal and strategic fit leads to more cooperative behaviour on the part of employees. The implications of these findings for future research and for human resource management are discussed.

## INTRODUCTION

The management of human capital in organisations has become to be seen a critical factor in maintaining and improving organisational performance (Bowen & Ostroff, 2004; Ostroff & Bowen, 2000). Research has shown that the people in organisations are an important variable when it comes to trying to stay ahead of the competition and that Human Resource Management (HRM) can play a decisive role in organisational performance (Arthur, 1994; Becker & Gerhart, 1996; Boselie & Dietz, 2003; Boselie, Dietz, & Boon, 2005; Boselie & Paauwe, 2000; Guest, Michie, Conway, & Sheehan, 2003; Wood, 1999; Youndt, Snell, James, & Lepak, 1996). Although a positive relationship is sometimes shown between HRM and organisational performance, little is yet known about its underlying mechanisms (Baron & Kreps, 1999; Bowen & Ostroff, 2004; Klein & Kozlowski, 2000).

HRM is assumed to affect knowledge, skills, abilities (Schuler & Jackson, 1995), attitudes and behaviour of employees (Guest, 1997), and may therefore affect the performance of an organisation (Den Hartog, Boselie, & Paauwe, 2004). The alignment of HRM with the organisation strategy (*strategic fit*) and the alignment of the various HRM practices, such as career opportunities, training and appraisal, within the organisation (*internal fit*) (Baron & Kreps, 1999) are assumed to be important factors in explaining the link between HRM and organisational performance. When HRM within an organisation is well aligned, the employees know what is expected of them, may therefore act similarly and have uniform expectations about work and behaviour (Baron & Kreps, 1999).

A basis for our theoretical reasoning is the “mutual-investment” model (Tsui, Pearce, Porter, & Tripoli, 1997). The maxim of the mutual-investment model is the following: when the employer looks after her employees, her employees will look after her. When the employer signals that she takes care of the well-being of her employees, employees will react

with more good will, commitment and willingness to cooperate. Tsui et al. (1997) add a layer of explanation to existing efficiency-wage models with their argument that the employment relationship is not only made up of a single layer of (predominantly) financial exchange, but that a further layer involving social exchange also exists. In this layer of social exchange, the employer and employee exchange goods that have not been agreed upon beforehand. A way for the employer to offer employees these types of “social” goods is to give employees opportunities for career enhancement.

In the context of the mutual-investment model (Tsui, et al., 1997; Tsui & Wang, 2002), the internal and strategic fits within an organisation are considered to be either job-focussed or organisational-focussed. When an organisation takes a job-focussed approach, the focus is on short-term rewards and direct compensation. This results in a series of short-term economic exchanges between employer and employee.

When the organisation takes a more organisational-focussed approach, the focus of the exchange is more long term. There is a greater emphasis on training, and employees are given, for instance, more job security. This results in a more stable exchange relationship between employer and employee. In this case, we expect that employees will show more cooperative behaviours as a response to the investments of the employer.

Long-term relationships are predicted to foster cooperation (Axelrod, 1984; Raub, 1997; Raub & Snijders, 1997). When modern-day employers are able to create such a long-term reciprocal relationship, where both parties invest in each other, they are creating a highly-skilled, motivated, loyal and cooperative workforce for their organisations. Experimental research has shown that employer investments in the labour relationship cause employees to react with more willingness to cooperate (Lambooi, Flache, Sanders & Siegers, forthcoming). Survey research has also revealed that when employers show that they aim to

establish a long-term stable employment relationship, employees react with more cooperation (Tsui et al, 1997).

Employees can cooperate with their co-workers as well as with their supervisors<sup>1</sup> (Koster, 2005; Lambooj, 2005; Sanders, & Van Emmerik, 2004). Cooperation with co-workers can take the form of helping out, or thinking up solutions for a problem a co-worker has. Cooperation with the supervisor can consist of suggesting improvements on the production process, finishing tasks even when it is inconvenient, or helping out when something has gone wrong, even when the employee him/herself is not responsible.

In this paper, we address the issue of internal and strategic fit in terms of job- and organisational- focussed approaches. Strategy and HRM practices can be more job-focussed or more organisational-focussed. When HRM and strategy are both organisational-focussed or when they both are more job-focussed, we argue that there is more strategic fit. When HRM practices are consistently more job-focussed or more organisation-focussed, we argue that there is more internal fit. Similar to Baron and Kreps (1999), we expect that when there is good internal and strategic fit, employees in an organisation will cooperate more, regardless of whether the fit is job- or organisational-focussed. In such situations, where a good fit elicits the cooperative behaviour of employees, the productivity of the organisation should also be enhanced.

In a review, Paauwe & Richardson (1997) distinguish between two kinds of HRM policy outcomes: financial outcomes, such as output of the organisation, market share, profit, market value, and non-financial factors, such as sick-leave, turnover, motivation and satisfaction (see also Delery & Shaw, 2001; Guest, 1997). In this paper, we incorporate both financial and non-financial organisational outcomes. This paper adds to existing literature because it aims to link the theory to empirical measurements. We study how (macro) HRM

---

<sup>1</sup> Instead of OCB (Podsakoff, et al, 2000), we distinguish between horizontal –among co-workers- and vertical – directed towards the supervisor- cooperative behavior (Koster, 2005; Koster & Sanders, 2006).

policies affect (micro) employee cooperation and how this contributes to (macro) organisational performance. Several years ago, Kozlowski and Klein (2000) argued that the earliest examples of organisational theory reflected the idea that organisations are multilevel studies. Despite the tradition and modern day relevance of organisational study, few studies have tried to empirically grasp this multilevel idea of organisations (p. 3). For the most part, organisations are sliced up into organisation, group, or individual levels, with little attempt to understand the dynamics between the levels (Kozlowski & Klein 2000). Scholars agree that in order to understand the HRM-performance link, more micro-macro research is needed (Bowen & Ostroff, 2004; Klein & Kozlowski, 2000). Therefore, this paper intends to contribute empirical knowledge on the multilevel processes at work. Some challenges facing researchers who address this problem will become clear. The research question in this paper is: *Can the HRM – Organisational Performance linkage be explained by the effect of the internal and strategic fit on the cooperative behaviour of employees towards their co-workers and their employer?*

#### *Theoretical elaboration and hypotheses*

To begin with, we will elaborate on the relationship between the cooperative behaviour of employees and organisational performance. Behaviours that are considered to be employees' cooperative behaviours in labour organisations are those that are conducted by employees when they align their interests with those of the employer and other employees (Koster & Sanders, 2006; Sanders & Van Emmerik, 2004; Sanders, Van Emmerik, & Raub, 2002). Cooperative behaviours consist of an array of behaviours that are beneficial to the employer or co-workers. Examples of such behaviours are: working together with colleagues within a team, sharing knowledge, working overtime, and submitting information needed to keep the

organisation running (Koster, 2005; Lambooi, 2005; Sanders, Emans, & Koster, 2004; Wickens, 1995).

HRM policies are assumed to affect the knowledge, skills, abilities (Schuler & Jackson, 1995), attitudes, and behaviour of employees (Guest, 1997) and may therefore also affect the performance of the organisation (Den Hartog, Boselie, & Paauwe, 2004). As previously mentioned, HRM policies can be oriented more towards the organisation or more towards the employees' jobs (Delery & Doty, 1996; Tsui & Wang, 2002). When the HRM policies are more job-focussed, the goals of the organisation are considered more prevalent than the needs of the employees. This may be reflected in, for instance, little job security and the lack of an internal labour market (Delery & Doty, 1996), which enables the organisation to hire and fire when external forces demand changes in the size of the work force. When the HRM policies are more organisation-focussed, the labour organisations provide more security and support by, for example, offering training and constructive feedback (instead of evaluative feedback).

Previous research has already given some insights into the effects of HRM. An example is Horgan (2003), who studied HRM systems and their effect on the performance of employees and found that performance was indeed affected by various HRM measures. Huselid (1995) found that "High Performance" HRM leads to more productive employees and a better organisational performance. Shaw, Delery, Douglas, Jenkins, and Gupta (1998) found various effects of HRM practices on discharge rates, one of them being a positive relationship between training and discharge rate. Rynes, Gerhart, and Minette (2004) found that pay affects employee effort. Ito and Brotheridge (2005) found that supervisory career support leads to reduced turnover intention. Noe (1996) studied effects of career management on, among other things, employee performance, but found no evidence for this relationship.

According to Podsakoff, MacKenzie, Paine, and Bachrach (2000), there are several ways in which cooperative employee behaviour affects organisational performance. First, cooperative behaviour could improve a co-worker's productivity. Employees who teach their co-workers the skills of the trade help their co-workers to be more productive. Second, the cooperative behaviour of employees may allow all employees to use their strengths. Third, cooperative behaviour, especially cooperative behaviour directed towards the supervisor, may increase the productivity of the supervisor. If employees are prepared to help and provide the supervisor with information, the supervisor receives constructive feedback and may then use this to improve team effectiveness. Furthermore, when employees solve problems for co-workers or prevent problems with co-workers, the supervisor does not have to spend his/her time running from one incident to the next. Fourth, cooperative behaviour, especially cooperative behaviour directed towards other employees, may improve team spirit, labour morale and cohesion, which may decrease turnover. Finally, cooperative behaviour may stabilise output: employees who pitch in when a co-worker is sick may reduce a fluctuation in the output. Overall, this may have a positive effect on organisation performance. This leads to our first hypothesis: *the more employees show cooperative behaviour towards their supervisor (hypothesis 1a) and towards co-workers (hypothesis 1b) within an organisation, the higher the organisational performance.*

If we expect the cooperative behaviour of employees to positively affect organisational performance, the subsequent question surely should be: How can the organisation (HRM) affect the cooperative behaviour of employees? The rationale behind *internal fit*, which refers to the alignment of the various HRM practices within the organisation, is that, even though some HRM practices may have more effect on organisational performance than others, if HRM practices are aligned, the benefits of this combination of HRM practices are larger than the sum of all individual practices (Baird &



Meshoulam, 1988). Research shows that systems, or bundles, of HRM practices have more influence on organisational performance than individual, separate HRM practices (Arthur, 1994; Huselid, 1995; Huselid, Jackson, & Schuler, 1997; Macduffie, 1995).

Baron and Kreps (1999) emphasise the importance of a consistent HRM and give a number of reasons. Consistent HRM practices are necessary for the awareness and appreciation of the employee. Consistency is beneficial because it helps the individual to understand what is expected of her. The same argument can be found in the theoretical work of Bowen and Ostroff (2004; Ostroff & Bowen, 2000). Employees develop expectations concerning how they will be treated in the future. When HRM practices are inconsistent, this will negatively affect the learning process.

Moreover, consistent HRM affects the social forces in an organisation. If the activities of the organisation are consistent, it is easier to mould individual expectations. In turn, employees will adapt their behaviour. Furthermore, there is the influence of consistent HRM on recruitment and selection. Consistent hiring policies can better ensure that employees are working at the right place, which is where they will perform best. Furthermore, in order to work cost efficiently, it is important that employees clearly understand the contents of the positions they are being hired for. Moreover, if employees do what matches their skills best, it is likely that they will enjoy their work, which may positively affect turnover (Lambert, Lynne Hogan, & Barton, 2001; Mynatt, Omundson, Schroeder, & Stevens, 1997).

Summarising: the internal fit ensures homogeneity among HRM practices. If the various HRM practices are aligned, all employees know what is expected of them, and they will have uniform expectations concerning their jobs and behaviour. Desired behaviour of employees is consistently rewarded and supported by the consistent HRM-practices and undesired behaviour is consistently discouraged. Because employees are treated equally and fairly, they will feel justly treated and this may encourage them to cooperate more with the

organisation. Employees compare their rewards with the rewards of relevant others (Bloom & Michel, 2002). Unequal reward may cause competitive and undesired behaviour. Equal and fair treatment will consequently remove an important cause of envy and competition among co-workers. So when the practices are better aligned, co-workers will be more inclined to cooperate than when practices are not well aligned. This means that we can formulate our second hypothesis: *the better the internal fit within an organisation, the more employees show cooperative behaviour towards their supervisor (hypothesis 2a) and towards their colleagues (hypothesis 2b).*

The *strategic fit* refers to the alignment of the organisation strategy and its HRM practices (Baird & Meshoulam, 1988; Wood, 1999). Successfully implementing the organisational strategy requires the employees to behave in such a way that the strategy is executed, for it is the employees that carry the strategy. Whether or not the strategy is successfully implemented depends greatly on the behaviour of the employees (Delery & Doty, 1996).

Organisations determine their own strategy, but are influenced by the organisational environment (Scott, 1992) and the stage of development the organisation is in. Bolwijn and Kumpe (1990) argue that all organisations move through various stages as they develop. During the stage in which the organisation competes in terms of costs, the organisation is characterised by strict top-down control, many rules and easy, repetitive tasks. In the following stage, the organisation competes in terms of quality. Then the skills of employees become more important. In the final stages, where organisations compete in terms of quality and innovation, the employees receive more autonomy and responsibility (Bolwijn & Kumpe, 1990).

The market in which the organisation operates greatly affects the determination of the proper strategy, resulting in organisations ultimately having few choices in practice. An

organisation in which the strategy and the HRM practices are well adjusted is one in which the various HRM practices are functional in terms of achieving the organisational goals. HRM ensures that there is a foundation that makes it possible for the strategy to be implemented (Ostroff & Bowen, 2000). The executed practices provide for a clear guideline as to which knowledge, behaviours and skills employees should possess. The strategy of the organisation ensures that it is clear about which behaviours are expected of the employees and the HRM practices encourage these behaviours. Consequently, employees may be more likely to agree on what is needed and may be more likely to understand where and how they can help co-workers. Thus, we can formulate our next hypothesis: *the better the strategic fit within an organisation, the more employees show cooperative behaviour towards their supervisor (hypothesis 3a) and towards their colleagues (hypothesis 3b).*

Tsui, et al., (1997) focus on the employment relationship and argue that the employment relationship can be seen as a social-exchange relationship (Tsui et al., 1997). By providing employees with career opportunities, the employer signals that she looks after the well being of her employees and she makes it more likely that the relationship between the employee and the employer is a long-term one. Providing for career opportunities not only positively affects the stability of the exchange relationship, it also adds a social-exchange dimension to the employment relationship.

The fundamental exchange in an employment relationship is the exchange of the employee's time and effort for the employer's money. However, by giving more career opportunities, the employer does something extra for her employee. Social-exchange theory predicts that exchange partners want to balance the exchange they are in (Adams, 1965; Fehr & Kirchsteiger, 1994; Homans, 1961, 60) According to this, employees will adapt their effort in such a way as to restore balance (Homans, 1961, 60). The imbalance can be caused by too much effort and too little reward or vice versa. This would mean that when employees feel

they get more than they deserve, they would increase their effort (Fehr & Kirchsteiger, 1994, 576).

Organisations making use of HRM practices that are more organisational-focussed are activating the dynamics described above in the mutual-investment idea, as the employer is providing for more opportunities to create a long-term employment relationship. This would suggest that the organisation-focussed practices would be giving employees somewhat more than the job-focussed policies. Therefore, we can formulate our next hypothesis: *the more organisational-focussed the internal or strategic fit, the more employees show cooperative behaviour towards their supervisor (hypothesis 4a) and towards their colleagues (hypothesis 4b)*.

## METHOD

*Sample.* For this study, we collected data in ten Dutch organisations. We sent out questionnaires and conducted interviews. A staff member knowledgeable in the organisation's strategy and HRM was interviewed in each of the ten organisations. In the questionnaire, we asked about cooperation, and in the interviews, we gathered information on the HRM practices and organisational strategy. This resulted in 723 returned questionnaires (response micro level is 35%), and ten structured interviews (response macro level is 59%).

In table 1, information is given concerning the size and aim of the ten participating organisations. Here, also, information on the number of respondents, their gender and the mean age per organisation can be found.

*Measures.*

The *internal fit* was measured using six HR practices (Delery & Doty, 1996): employment security, remuneration, job description, participation, internal career opportunities, and training. Delery and Doty (1996) also include formal dismissal policies and extensive benefits for the out placed in the employment security variable. However, in the Netherlands, every organisation has formal dismissal policies by law and the Dutch welfare system ensures some kind of income for everybody after dismissal. Therefore, we did not include this aspect in our conceptualisation.

In Table 2, the six practices that we used for the measurement of internal fit are displayed. The staff members from the ten organisations answered questions on the six measures, and the researchers then rated the answers to be more organisation-focussed or more job-focussed. The practices are displayed in the left column; the items that were considered the organisational-focus approach are displayed in the middle column; and the items considered the job-focussed approach can be found in the right column,. If we, for instance, consider “training”, we can see that the practices “formal training policies”, “options to outsource training”, “training (partially) financed”, “time available for training”, “training of general skills” were included in the column for organisational-focussed approach. When the organisation offered few or none of these options (as displayed in the right column of table 2), the HRM practices concerning training were rated by the researcher to be more job-focussed. This means that we measured the degree of organisational-focus and job-focus for each of the different practices.

This leads to six scales for the HRM measures on the job-focussed approach and six scales for the organisation-oriented approach. By standardising the different scales, we created six scores related to the job-focussed approach and six scores related to the organisational-focussed approach. In order to find an indication of internal fit, we computed the inversed standard deviation per organisation over all six practices, both job-focussed and

organisational-focussed. Burke, Finkelstein, and Dusig (1999) use a similar technique to create measurements of agreement in a group. A low value means that the internal fit between the practices is low. A high value means that this fit is high.

The basis of the *strategic fit* measure comes from the four-phase model developed by Bolwijn and Kumpe (1990), which differentiates between four strategies based on (1) cost, (2) quality, (3) flexibility and (4) innovation. In the interviews, the respondents were asked to indicate if and to what degree the different strategies (cost, quality, flexibility and innovation) are applicable to the organisation. Answers could be given from 1 (not at all) to 7 (completely).

We used factor analyses to determine which strategies could be grouped (see Appendix 1). These outcomes clearly indicate that the strategy of costs does not belong to the other three strategies. As mentioned previously, during the stage in which the organisation competes in terms of costs, the organisation is characterised by strict top-down control, many rules and easy, repetitive tasks, whereas in the other stages, the employees are given more autonomy and responsibility (Bolwijn & Kumpe, 1990). Based on the outcomes of the factor analysis and these theoretical considerations, we considered the strategy based on costs a job-focussed strategy and the other three, organisational-focussed strategies.

The value for organisational-focussed strategy is computed by the mean of the standardised scores for quality, flexibility and innovation, and the standardised score for a costs-based strategy is used to compute the job-focussed strategy. This generated two variables, one for job-focussed strategy and one for organisational-focussed strategy. In order to compute the job-focussed strategic fit, the mean score of the six standardised job-focussed HRM practices were computed, and this amount was subtracted (absolute) from the means of the standardised score of job-focussed strategy. The organisational-focussed strategic fit was computed in a similar way. A high score indicated a large discrepancy between the strategy

and the HRM measures. We therefore multiplied the scales by  $-1$ , so that a high score indicated a good strategic fit and a low score indicated a bad strategic fit.

*Employee cooperative behaviour* was measured by five items, indicating various aspects of cooperative behaviour (Koster, 2005; Lambooi, 2005; Sanders & Van Emmerik, 2004) and computed for two types of relations in the labour organisation: cooperative behaviour towards the supervisor and cooperative behaviour towards the co-workers (Koster, 2005; Lambooi, 2005; Sanders, & Van Emmerik, 2004). An example of cooperative behaviour towards the supervisor is: "I help my supervisor when something goes wrong and nobody can be held responsible". Respondents could answer on a 7-point Likert scale. The reliabilities for both scales were sufficient; cooperative behaviour towards the supervisor: Cronbach  $\alpha = .87$ ; and cooperative behaviour towards the colleagues: Cronbach  $\alpha = .89$  (for a complete list of the items, see appendix 2).

*Organisational performance* was measured by financial and non-financial performance measures. Non-financial performance is computed in two ways: number of people who leave the organisation, divided by the size of the organisation, corrected for "natural leave" such as retirement. The other indicator is sick leave because this may be affected by organisational factors (Farrel & Stamm, 1988). Financial performance is measured by returns.

*Analyses.* We used various methods of analysis to test our hypotheses. In order to capture relationships that are present in the data, it is important to take account of the different levels in the data. So wherever possible, we used multilevel regression analysis (Raudenbush & Bryk, 2002).

For the analyses with the dependent variable on the macro level (organisational performance; hypothesis 1), regression techniques were not considered useful because of the small number of participating organisations. Therefore, we used Kendall's tau-b (Kendall,

1970) in order to find an indication of the direction of the relationship. This measure compares the surplus of concordant pairs (a pair which is positively associated) over the discordant pairs, compared with all relevant pairs. The relevant pairs are the concordant pairs, discordant pairs and ties (pairs with the same X or Y value). The outcomes are indications of the direction of the relationship between two variables.

## RESULTS

In Table 3, the descriptive statistics are shown for the micro data. As can be seen in this table, organisation-focussed internal fit is highly related to organisational-focussed strategic fit (.42,  $p < 0.01$ ), which indicates the multi-collinearity of those two variables. Job-focussed and organisational-focussed strategic fit are negatively related ( $r = -.34$ ,  $p < .01$ ), while job- and organisational-focussed internal fit are positively related ( $r = .15$ ,  $p < .01$ ). In order to avoid problems with multi-collinearity, we did not include those variables simultaneously in the models.

In Table 4, the descriptive statistics of the macro dataset are displayed. Here we see a positive relationship between both internal fit measurements ( $r = .36$ ,  $p < .1$ ), and a negative relationship between both strategic fit measurements ( $r = -.38$ ,  $p < .1$ ). So, here we may also have problems with multi-collinearity. Furthermore, the number on the organisation level is not large, which makes the statistical power small. For these reasons, we entered all fit measurements in the models separately.

The mean turnover of the participating organisations is 11.8 percent (Table 4). This is a normal figure in the Netherlands. The mean sick leave is 6.0% in our sample. The most recent national figures from the Netherlands ranged from 4.2% to 5.2% (varying across sectors of the labour market), with an annual average of 4.7%<sup>2</sup>. So, our sample is somewhat

---

<sup>2</sup> These number come from the Netherlands Statistics (CBS) [www.statline.cbs.nl](http://www.statline.cbs.nl)



higher. Returns per employee have a mean of 203,476 (SD=246,782), indicating that we have a wide spread on this variable.

Hypothesis 1 predicts that when employees in an organisation cooperate more with their supervisor and co-workers, organisational performance will be higher. In Table 4, the tau-b coefficients are displayed for the macro data. Here we find indications that cooperation among co-workers is related mainly to the non-financial measures. A significant negative relationship ( $-0.46, p < 0.05$ ) is found between cooperation with co-workers and turnover, meaning that more cooperation among co-workers goes along with less turnover. There is, however, a positive relationship between cooperation with co-workers and sick leave ( $0.49, p < 0.05$ ), meaning that the sick leave in an organisation is higher when employees show more cooperative behaviour amongst each other. We consider hypothesis 1 to be partially supported by the data.

In the second hypothesis, we predicted that the better the internal fit within an organisation, the more cooperative behaviour employees would show. In Table 5, multilevel regression analyses are displayed with dependent variable “cooperation with co-workers”. In this table, we find no significant effects of the internal-fit measurements and cooperation amongst co-workers. In Table 6, which displays multilevel analyses explaining cooperation with the supervisor, we find no significant effects for either of the internal-fit measurements. This means that hypothesis 2 is not supported by the data.

In the third hypothesis, we predicted that the better the strategic fit within an organisation, the more cooperative behaviour employees would show within the organisation. In Table 5, we find no indication that employees cooperate more with their co-workers when the strategic fit is better. In Table 6, we see that the effects of both strategic fit measures (job- and organisational-focussed) are not significant. This means that hypothesis 3 is not supported by the data.

In the fourth hypothesis, we predicted that organisational-focussed internal or strategic fit is related to the cooperative behaviour of employees. In Table 5 and Table 6 no significant effects of organisational-focussed internal or strategic fit were found. This means that hypothesis 4 is not supported by the data.

## **CONCLUSIONS AND DISCUSSION**

This paper empirically tests whether or not HRM practices that are internally consistent and aligned with the strategy of an organisation positively affect employee cooperation and whether or not this, in turn, positively affects organisational performance.

Concerning the effects in the analyses, there was little evidence in line with our hypotheses. We could not show that the fit, neither internal nor strategic, affects cooperative behaviours of employees. The variable ‘cooperation with co-workers’ is alone related to the non-financial measures of organisational performance. More cooperation with co-workers is negatively related to turnover, but is positively related to sick leave. If we assume that the employer prefers little turnover, because turnover generates costs, this is positive for the employer. The costs of high turnover result from experienced workers leaving the organisation and new workers having to be broken in. However, more cooperation among employees also comes with more sick leave. The positive relation between cooperation and sick leave may be an indication that too much of a good thing may have negative effects (Langfred, 2004). It could be that when employees cooperate too much, they also cover for each other when they do something that is not favourable to the organisation (Sanders, 2004).

There are a number of possible reasons for our results. The first set of reasons can be summarised with: the theory is wrong. The second set of reasons can be summarised with: the research is wrong. In the following, we will begin by pointing out what improvements can be made on the research presented here. Second, we will discuss the theoretical implications.

The first methodological issue that arises upon analysing this research is connected to the way in which organisational-level practices are measured. The HRM practices and strategy of an organisation are measured on an organisational level, which aims to grasp the real policies instead of the perceived policies. However, employees may perceive the policies quite differently from what was intended by management. It may be useful to go more deeply into employees' perceptions of organisational policies, instead of the actual situation. It could well be that all practices are officially well aligned and well thought out, but are not perceived so by the employees. Moreover, HR policies have to be implemented by people and this can create distortions, which may result in employees perceiving the policies differently because they are no longer well aligned at a lower level. Some studies therefore argue that we need to take both the employers' and employees' perceptions of the situation into account in order to better understand the HRM-performance relationship (see: Bowen & Ostroff, 2004; Tsui & Wang, 2002). An empirical study by Dorenbosch, Gubbels, De Reuver, Van Engen and Sanders (2005) shows that when HR practices are perceived to be more consistent, employees respond with more affective commitment. Without commenting on the link between attitude and behaviour, this approach may be used to predict cooperative behaviours, as well. This suggests that, although we used a multi-actor design to explain the HRM – organisational performance linkage, a one-actor design may have been more fruitful for explaining cooperative behaviour. Another suggestion for future research is to compare the more objective measures of organisational policies to the perceived policies. When the size of this difference is known, further implications for organisations and researchers can be examined.

The second methodological issue in this paper may lie in the empirical measurement of internal and strategic fit. These empirical measurements demanded the use of many theories: one for internal fit (Delery & Doty, 1996) and one for strategy (Bolwijn & Kumpe, 1990). Furthermore, in order to compare these two measurements, we had to assume that both

series of policies could be assigned to the job- versus organisational-focussed approach. One could argue that it would be better to construct one, internally consistent theory and deduct measurements from that theory. It may be fruitful to develop such a theory for future empirical research.

A second possible problem with the construction of the fit variables was that we had to take many computational steps to go from the empirical data to the final measure. The practical problem caused by this is that there is more room for error than when fewer computations have to be made. Furthermore, the resulting numbers are more difficult to interpret. A third possible problem is that internal strategic fit might be more adequately measured by a single indicator that reflects how consistently the entire bundle of HRM measures is oriented towards either the employees or the organisation. In our conceptualisation, the indicators for job-focussed fit are not completely independently conceptualised from the indicators that measure organisation-focussed fit. When an organisation scores high on the one measure, it is highly unlikely that the organisation also scores high on the other measure. In our sample, this was the case: there were no organisations that scored high on both job-focussed and organisational-focussed fit measures. However, there were organisations that scored low on both aspects. This implies that those organisations either had poor policies, or that the organisations had made policies that were based on a different approach. The fact that there was no organisation in the sample that scored high on both types of fit (i.e. job-focussed internal fit and organisational-focussed internal fit) indicates that we are on the right track. However, future studies may try to find a conceptualisation in which these scales are conceptualised independently.

The dimension along which we measured 'internal consistency' may also need improvement. Internal consistency is determined here by job- versus organisational-focussed practices, however, future attempts should perhaps look at constructs that measure external fit

as well as internal fit (Baird & Meshoulam, 1988). It could be argued that the adaptability to the external environment should be seen as a prominent factor when looking at influences on organisational performance. This aspect could also differ across organisations. It could well be that one organisation works best in teams and needs self-sufficient employees who take action, while other organisations have a greater need for so-called good soldiers.

Another weak point is that we only conducted one interview per organisation, making these observations vulnerable for subjectivity from the single individual that rated the policies. Already in 1994, Osterman expressed his scepticism about the level of awareness of the typical HR manager concerning the people management processes within the own organisation (see also Boselie, Dietz, & Boon, 2005). In future research, it would be advisable to use more interviews per organisation in order to have an indication of the reliability of the measures.

Theoretical problems, however, may also account for the lack of findings. We assumed here that cooperation was beneficial for an organisation. Other authors argue similarly and seem to assume that when every individual employee performs better, the organisational performance will be better as well. However, this micro-to-macro transition may not be so direct. We saw, for instance, that more cooperation also goes with more sick leave. This is an indication that there are forms of cooperation that may not necessarily be beneficial to the organisation. This could mean that under certain conditions, individual behaviour that may appear beneficial for an organisation, may lead to unwanted outcomes on the organisational level. It could also be argued that when the management in an organisation is poor, the combined positive effort of employees does not lead to positive organisational level outcomes. For HRM managers, this paper shows that simply ensuring that the HRM

policies are aligned with themselves and with the strategy may not be sufficient for improving organisational performance.

In conclusion: can we say that a good internal and strategic fit results in more cooperation from employees and that this, in turn, results in better organisational performance? We were not able to show this. We found no evidence to support the idea that the fit measures generated more cooperation. We did find some indications that cooperation affects non-financial organisation performance. Therefore, future research may aim at clearly distinguishing between the different effects of the HRM measures and their separate effects on various employee behaviours. It may even be more important to look at how employees perceive these policies than to look at the actual situation. But first, we need to understand and empirically grasp how micro-level behaviour leads to certain organisational outcomes.

## Appendix 1. Factor loading (Principal Component analysis) of strategies

Strategy	Organisational focus	Job focus
Costs	-.43	.86
Quality	.88	.20
Flexibility	.82	-.25
Innovation	.82	.48

## Appendix 2

### Items of scales and Cronbach's Alpha.

#### Employee cooperation with co-workers

(Cronbach's alpha for micro data: 0.84)

1. I help my team members to finish the job
2. I am willing to help team members when something goes wrong and nobody else can be held responsible
3. I apologize to my team members when something goes wrong
4. I try to share the pleasant and unpleasant tasks with my team members as fairly as possible.
5. I live up to agreements with my team members.

#### Employee cooperation with supervisor

(Cronbach's alpha for micro data: 0.77)

1. I help my supervisor to finish the job
2. I am willing to help my supervisor when something goes wrong and nobody else can be held responsible
3. I apologize to my supervisor when something goes wrong
4. I try to share the pleasant and unpleasant tasks with my supervisor as fairly as possible.
5. I live up to agreements with my supervisor.



## References

- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267-300). New York: Academic Press.
- Arthur, J. B. (1994). Effects of Human Resource Systems on Manufacturing Performance and Turnover. *Academy of Management Journal*, 37, 670-687.
- Baird, L., & Meshoulam, I. (1988). Managing Two Fits of Strategic Human Resource Management. *Academy of Management Review*, 13(1), 116-128.
- Baron, J. N., & Kreps, D. M. (1999). *Strategic human resources. Framework for general managers*. New York: Wiley and sons.
- Becker, B., & Gerhart, B. (1996). The impact of Human Resource Management on Organizational Performance: Progress and Prospects. *Academy of Management Journal*, 39(4), 779-801.
- Bloom, M. & J.G. Michel (2002). The relationships among organizational context, pay dispersion, and managerial turnover. *Academy of Management Journal* 45(1), 33-42
- Bolwijn, P. T., & Kumpe, T. (1990). Manufacturing in the 1990s- Productivity, Flexibility and Innovations. *Long Range Planning*, 23(4), 44-57.
- Boselie, P., & Dietz, G. (2003). *Commonalities and contradictions in research on Human Resource Management and Performance*. Paper presented at the Dutch HRM Network Conference 2003, Twente.
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in research on Human Resource Management and Performance. *Human Resource Management Journal*, 15, 67-81.
- Boselie, P., & Paauwe, J. (2000). Human Resource Management en het presteren van de organisatie. [Human Resource Management and Organisation Performance] *Organisatie en Management*, 4, 111-128.

- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-Firm Performance Linkages: The Role of the "Strength" of the HRM System. *Academy of Management Review*, 29(2), 203-221.
- Burke, M. J., Finkelstein, L. M., & Dusig, M. S. (1999). On average deviation indices for estimating interrater agreement. *Organizational Research Methods*, 2, 49-68.
- Delery, J. E., & Doty, D. H. (1996). Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance Predictions. *Academy of Management Journal*, 39(4), 802-835.
- Delery, J. E., & Shaw, J. D. (2001). The Strategic Management of People in Work Organizations: Review Synthesis and Extensions. In G. Ferris (Ed.), *Research in Personnel and Human Resource Management* (Vol. 20). Oxford, UK: Elsevier Science.
- Den Hartog, D. N., Boselie, P., & Paauwe, J. (2004). Performance Management: A model and research agenda. *Applied Psychology: an International Review*, 53(4), 556-569.
- Dorenbosch, L., Gubbels, W., De Reuver, R., Van Engen, M., & Sanders, K. (2005). *The influence of HRM on organizational commitment: a case of consistency among HRM practices?*, Istanbul, paper presented at EAWOP conference, May 14.
- Farrell, D., & Stamm, C. L. (1988). Meta-analysis of the correlates of employee absence. *Human Relations* 41, 211-227.
- Fehr, E., & Kirchsteiger, G. (1994). Insider power, wage discrimination and fairness. *The Economic Journal*, 104(424), 571-583.
- Guest, D. E. (1997). Human Resource Management and Performance: A Review and Research Agenda. *International Journal of Human Resource Management*, 8(3), 263-276.

- Guest, D. E., Michie, J., Conway, N., & Sheehan, M. (2003). Human Resource Management and Corporate Performance in the UK. *British Journal of Industrial Relations*, 41(2), 291-314.
- Homans, G. C. (1961). *Social behavior: Its elementary forms* (1974 ed.). New York: Harcourt Brace Jovanovich.
- Horgan, J. (2003). *High performance human resource management in Ireland and the Netherlands. Adoption and effectiveness*. Groningen: ICS-dissertation.
- Huselid, M. A. (1995). The impact of Human Resource Management Practices on Turnover, Productivity and Corporate Financial Performance. *Academy of Management Journal*, 38(3), 635-672.
- Huselid, M. A., Jackson, S. E., & Schuler, R. S. (1997). Technical and Strategic Human Resource Management Effectiveness as Determinants of Firm Performance. *Academy of Management Journal*, 40(1), 171-188.
- Ito, J. K., & Brotheridge, C. M. (2005). Does supporting employees' career adaptability lead to commitment, turnover, or both? *Human Resource Management*, 44(1), 5-19.
- Kendall, M. G. (1970). *Rank correlation methods. Fourth edition*. London: Griffin.
- Klein, K. J., & Kozlowski, S. W. (Eds.). (2000). *Multilevel Theory, Research and Methods in Organizations*. San Francisco: Jossey-Bass.
- Koster, F. (2005). *For the time being: Accounting for inconclusive findings concerning the effects of temporary employment relationships on solidary behavior of employees*. Veenendaal: Universal Press.
- Koster, F., & Sanders, K. (2006). Organizational citizens or reciprocal relationships? An empirical comparison. *Personnel Review*, in press.
- Kozlowski, S. W., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations. Contextual, temporal and emergent processes. In K. J. Klein & S. W.

- Kozlowski (Eds.), *Multilevel theory, research and methods in organizations. Foundations, extensions and new directions*. San Francisco: Jossey-Bass.
- Lambert, E. G., Lynne Hogan, N., & Barton, S. M. (2001). The impact of job satisfaction on turnover intent: a test of a structural measurement model using a national sample of workers. *Social Science Journal*, 38(2), 233-250.
- Lambooi, M.S. (2005). *Promoting cooperation. Studies into the effects of long-term and short-term rewards on cooperation of employees*. Veenendaal, Universal Press.
- Lambooi, M., Flache, A., Sanders, K. & Siegers, J. (forthcoming) Encouraging employees to cooperate. The effects of sponsored training and promotion practices on employees' willingness to work overtime. *International Journal of Human Resource Management*.
- Langfred, C. W. (2004). Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. *Academy of Management Journal*, 47(3), 385-399.
- Macduffie, J. P. (1995). Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry. *Industrial & Labor Relations Review*, 48(2), 197-211.
- Mynatt, P. G., Omundson, J. S., Schroeder, R. G., & Stevens, M. B. (1997). The impact of anglo and hispanic ethnicity, gender, position, personality and job satisfaction on turnover intentions: A path analytic investigation. *Critical perspectives on accounting*, 8, 657-683.
- Noe, R. A. (1996). Is career management related to employee development and performance? *Journal of Organizational Behavior*, 17(2), 119-133.
- Ostroff, C., & Bowen, D. E. (2000). Moving HR to a Higher Level. In K. J. Klein & S. W. Kozlowski (Eds.), *Multilevel Theory, Research, and Methods in Organizations* (pp. 211-266). San Francisco: Jossey-Bass.

- Paauwe, J., & Richardson, R. (1997). Introduction Special Issue on HRM and Performance. *International Journal of Human Resource Management*, 8(3), 257-267.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behavior: A critical review of the theoretical and empirical literature and suggestions for further research. *Journal of Management*, 26(3), 513-563.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: Sage.
- Rynes, S. L., Gerhart, B., & Minette, K. A. (2004). The importance of pay in employee motivation: discrepancies between what people say and what they do. *Human Resource Management*, 43(4), 381-394.
- Sanders, K. (2004). Playing truant within organizations: Informal relationships, work ethics, and absenteeism. *Journal of Managerial Psychology*, 19, 136-155.
- Schuler, R. S., & Jackson, S. E. (1995). Understanding human resource management in the context of organizations and their environment. *Annual Review of Psychology*, 46, 237-264.
- Scott, W. R. (1992). *Organizations, rational, natural and open systems*. Englewood Cliffs: Prentice Hall.
- Shaw, J. D., Delery, J. E., Douglas Jenkins, G. J., & Gupta, N. (1998). An organizational-level analysis of voluntary and involuntary turnover. *Academy of Management Journal*, 41(5), 511-525.
- Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative approaches to the employee-organization relationship: does investment in employees pay off? *Academy of Management Journal*, 40(5), 1089-1121.
- Tsui, A. S., & Wang, D. (2002). Employment Relationships from the Employer's Perspective: Current Research and Future Directions. In C. L. Cooper & I. T. Robertson (Eds.),

*International Review of Industrial and Organizational Psychology* (Vol. 17, pp. 77-114). New York: John Wiley & Sons.

Wood, S. (1999). Human Resource Management and Performance. *International Journal of Management Reviews*, 1(4), 367-413.

Youndt, M. A., Snell, S. A., James, W. D., & Lepak, D. P. (1996). Human Resource Management, Manufacturing Strategy, and Firm Performance. *Academy of Management Journal*, 39(4), 836-866.

**Table 1. Participating organisations**

Organisa- tion	Purpose	Size (# employees)	Number of respondents	%male	Mean age
1	Registration national education, provision a scholarships,	1568*	160	55	38.47
2	Lecturing and research	320	85	41	41.76
3	Lecturing and research	350	60	51	43.93
4	Lecturing and research	61	11	73	43.18
5	Swimming, catering and rental of sport facilities	95*	16	25	35.00
6	Providing subsidies for arts, design and cultural heritage	25	17	35	42.35
7	Printing, producing multi media	81	67	80	44.65
8	Army (Airpower)	911*	200	88	37.49
9	Care for handicapped, elderly people	6102*	98	7	36.69
10	Rental, maintenance, selling and building houses	31	14	64	43.57

\* within these organisations not all employees received a questionnaire

**Table 2. Job-focussed and organisational-focussed internal fit and their items**

	Items for organisational-focussed internal fit	Items for job-focussed internal fit
Employment security	What type of contract do new employees get? (more tenured, higher score)	How many employees have different types of contracts? (more temporal, higher score)
Remuneration	Are there variable wages on the basis of profit sharing, informal ways	Are there variable wages based on achievements, based rewards, piece rating, bonus
Job description	Broad, aimed at competence	Strict, aimed at tasks
Participation	Decentralization, project groups, other ways (idea box)	No measures
Internal career opportunities	Formal career system, transfer policies, job rotation programs, options for job redesign, other means	No formal career system, no transfer policies, no options for job redesign
Training	Formal training policies, options to outsource training, training (partially) financed, time available for training, training of general skills	No formal training policies, no options to outsource training, training not financed, no time available, training of firm-specific skills



**Table 3. Descriptive statistics and correlations for micro dataset (N=723 employees; 10 organisations)**

	Mean	SD	1	2	3	4	5	6	7
1. Cooperation with supervisor	5.66	0.90							
2. Cooperation with co-workers	5.81	0.91	.53**						
3. Female	0.42	0.49	-.12**	-.00					
4. Education	14.08	2.78	-.10**	-.32**	-.03				
5. Internal fit, job focus	0.78	0.25	-.08*	.06	.08*	.03			
6. Internal fit, organisational focus	0.68	0.39	-.05	-.20**	.19**	.40**	.15**		
7. Strategic fit, job focus	0.19	2.11	.31**	.29**	-.51**	-.12*	-.06	-.24**	
8. Strategic fit, organisational focus	-0.07	1.24	-.11*	.13**	.33**	-.32**	.05	.42**	-.34**

†= p&lt;0.1, \*=p &lt; .05, \*\*=p &lt; .01 (two tail)

**Table 4. Kendall's Tau-b for macro data (N=10);**

	Mean	SD	1	2	3	4	5	6	7	8
1. Turnover	11.76	6.63								
2. Sick-leave	5.99	4.40	-.37†							
3. Returns	203476	246782	.33	-.23						
4. Internal fit job focus	.85	.19	-.28	-.32	-.18					
5. Internal fit organisational focus	.82	.44	.38†	-.11	.30	.36†				
6. Strategic fit job focus	-.01	1.26	-.00	.09	.05	-.02	.23			
7. Strategic fit organisational fused	.00	1.26	.09	-.00	-.14	.20	.23	-.38†		
8. Cooperation with co-workers	5.60	.23	-.46*	.49*	.00	.47*	.14	.07	.20	
9. Cooperation towards supervisor	5.72	.51	.18	-.23	.27	.28	.00	-.02	.29	.20

†= p&lt;0.1, \*=p &lt; .05, \*\*=p &lt; .01 (one tail)

**Table 5. Multilevel regression analyses explaining cooperation with co-workers (N=724 employees: 10 organisations)**

	B (s.e.)	B (s.e.)	B (s.e.)	B (s.e.)	B (s.e.)	B (s.e.)	Hypothesis (direction)
Female		0.16*	0.16*	0.16*	0.16*	0.16*	
		(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	
Education (years)		-0.05**	-0.05**	-0.05**	-0.05**	-0.05**	
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	
Internal fit job focus			0.50 (0.38)				2 (+)
Internal fit organisational focus				-0.16 (0.15)			2 (+) 4 (+)
Strategic fit job- focus					0.06 (0.05)		3 (+)
Strategic fit organisational focus						-0.08 (0.09)	3 (+) 4 (+)
Constant	5.76** (0.15)	6.42** (0.25)	6.95** (0.45)	6.49** (0.26)	6.43** (0.25)	6.41** (0.26)	
Variance organisation level	0.21** (0.11)	0.13* (0.06)	0.13* (0.06)	0.14* (0.07)	0.12* (0.06)	0.14* (0.07)	
Variance person	0.72**	0.71**	0.71**	0.71**	0.71**	0.71**	

level	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
-2 log likelihood	1846.25	1829.49	1827.71	1828.50	1827.87	1828.75

---

†= p<0.1, \*=p < .05, \*\*=p < .01

**Table 6. Multilevel regression analyses explaining cooperation with supervisor (N=723 employees, 10 organisations)**

	B (s.e.)	B (s.e.)	B (s.e.)	B (s.e.)	B (s.e.)	B (s.e.)	Hypothesis (direction)
Female	-0.06 (0.08)	-0.07 (0.08)	-0.06 (0.08)	-0.06 (0.08)	-0.06 (0.08)	-0.06 (0.08)	
Education (years)	-0.03* (0.02)	-0.04 * (0.02)	-0.04** (0.01)	-0.04** (0.01)	-0.04** (0.01)	-0.04** (0.01)	
Internal fit job focus		0.24 (0.29)					2 (+)
Internal fit organisational focus			0.24 (0.15)				2 (+) 4 (+)
Strategic fit job focus				0.04 (0.03)			3 (+)
Strategic fit organisational focus					0.02 (0.06)		3 (+) 4 (+)
Constant	5.61** (0.08)	6.13** (0.22)	5.95** (0.32)	6.11** (0.23)	6.14** (0.22)	6.13** (0.23)	
Variance organisation level	0.04† (0.03)	0.03† (0.02)	0.04† (0.03)	0.04† (0.03)	0.03 (0.02)	0.04† (0.03)	
Variance person level	0.76** (0.04)	0.75** (0.04)	0.75** (0.04)	0.75** (0.04)	0.75** (0.04)	0.75** (0.04)	
-2 log likelihood	1861.77	1855.77	1855.16	1855.77	1854.31	1855.81	

†= p<0.1, \*=p < .05, \*\*=p < .01