# Narrative review on how mediating mechanisms influence the relationship between employees' perception of HR practices and employee performance

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In this review, mediating mechanisms influencing the relationship between employees' perception of HR practices and employee performance are studied using the abilities, motivation and opportunity to perform (AMO) framework. Investigating this relationship at employee level will help open up the so-called 'Black Box' of HRM. Thirty articles were analyzed using a method of tallying to identify to which extent different mediating factors were studied. This can help researchers in the field of HRM to form new research questions for studies which can investigate these mediating factors further.

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#### **Keywords**

Narrative review, mediating mechanisms, perceived HR practices, employee performance, AMO, Black box

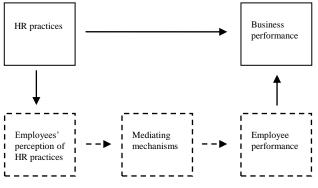
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## **1. INTRODUCTION**

"Strategic human resource management refers to the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals" (Wright & McMahan, 1992, p. 298). When HR systems are well designed and implemented, they can improve the performance of the organization (Nishii, Lepak, & Schneider, 2008). However, previous research has not answered the question of how HR systems and organizational performance relate (Wright & Nishii, 2007). According to Bowen and Ostroff (2004), more research is needed into this so-called 'black box' between HR systems and organizational performance. Researchers in the field of strategic human resources management (SHRM) already showed that HR systems influence business performance by affecting employees' human capital, motivation, and opportunity to perform (Jiang, Takeuchi, & Lepak, 2013). However, Bowen and Ostroff (2004) suggest that HR systems first have to be perceived by employees, before they can affect employees' behavior. So, to help open up the socalled 'black box' of HRM, more research is needed at this employee level.

This review, with its focus on the employee level of analysis, will investigate how employees' perception of HR systems relates to employee performance. Using the abilities, motivation and opportunity to perform (AMO) framework (Jiang, et al., 2013), the mediating factors between employees' perception of HRM systems and employee performance are studied (Figure 1). Studying these mediating factors is important as they help to form a theoretical understanding of the underlying relationship between employees' perception of HRM systems and employee performance.



#### Figure 1.

Using a method of tallying this review will identify the level of investigation into each of the mediating factors at employee level, which in turn will point towards gaps in literature. This could help future research in forming important research questions to explore the mediating factors further. This type of research will help understand how employees' performance is affected by mediating factors and how managers can adapt their HR practices to be most effective.

The greater part of the research that studied employees' perception on HR practices used reports from managers about those perceptions. However the perceptions of employees, for which the HR practices were meant, seem to differ substantially from those records. (Jiang, et al., 2013). In this review, research has been done into the mediating factors with actual data from these employees, to whom HR practices were applied. A lot of research has already been done into these factors but there is not yet a review with an overview of the most studied mediating factors and which ones need more research.

Therefore, this review aims to answer the question: 'to which extent have the mediating factors between employees' perception of HR systems and employee performance been studied?', using the ability, motivation & opportunity to perform framework.

The primary objective of this review is to answer the research question. An additional goal is to inspire and inform other researchers within the field, to improve knowledge on this 'black box' phenomenon.

This narrative review starts with a theoretical section in which an overview is given of the concepts used and their definitions. After that, the methodology section will describe the working method used to form this review. The methodology also includes an overview of the journals used with the number of articles found and the number of articles examined. Different sections after that describe the results, which will be discussed and concluded. In the final section the implications of the different findings will be discussed and limitations of this review will be given.

## 2. THEORY

In this review the mediating factors between 'Employee perceptions of HR practices' and 'Employee performance' (Figure 1) are studied. The mediating factors are conceptualized with the use of the AMO theory. The concepts of Figure 2 are defined together with the indicators of abilities, motivation and opportunity.



Figure 2.

## 2.1 Concepts & definitions

#### 2.1.1 Employee perception of HR practices

Employee perceptions of HR practices are the employees' beliefs about a company's HR practices. (Chang, 2005). Chang (2005) used the model of Fishbein (1963) to make clear how employee's perception of HR practices can be explained. According to Chang (2005) employees' overall perception of HR practices is equal to the different beliefs about diverse HR practices. Because most employees are being influenced by multiple HR practices at the same time, the various beliefs should be added up for the overall perception which influences behavior.

#### 2.1.2 Mediating factors

Mediating factors are, as shown in figure 2, the factors affecting the relationship between employee's perception of HR systems and employee performance. Employees' perceptions of HR systems influence the mediating factors which in turn influence employee performance. In this review the AMO framework is used to conceptualize these factors. The AMO model was designed for use at the individual level. (Jiang, et al., 2013). According to Jiang, et al. (2013), the model suggests that when abilities, motivation and opportunities of employees are positively influenced by employee perceived HR practices, this will enhance the performance of employees. So, the AMO framework is drew upon to categorize different mediating factors into the three dimensions of the AMO model. The AMO framework was chosen because this model states that the three aspects explain employee performance. Therefore the AMO model was a logical choice for categorizing the mediating factors. Next, the three aspects of this model will be defined together with the indicators of each aspect.

#### 2.1.2.1 Abilities

Abilities are the competences of the employee needed for task performance. This dimension can be subdivided into knowledge, skills, and other characteristics. Knowledge is the intellectual capital of an employee that can be used for the performance of tasks. Skills are the employees' functional or specific expertise (Subramaniam & Youndt, 2005). And 'other characteristics' is a general category for other factors such as personality, willingness, and interest and tangible factors such as degrees. All these elements influence task performance of an employee. In the literature, variables used to measure abilities are often human capital and educational level. (Jiang, Lepak, Hu, & Baer, 2012). Human capital can be seen as a combination of employees' knowledge, skills and abilities. (Coff, 2002). And educational level is the degree to which employees are educated.

#### 2.1.2.2 Motivation

Motivation is defined by Campbell, McCloy, Oppler & Sager (1993) as the direction, intensity, and duration of employees' effort in performing tasks. Other, slightly different definitions can be found of motivation, for example according to Jiang, et al., (2013), motivation reflects employees' willingness to exert efforts at work. The dimension motivation has also different aspects. These aspects will be defined briefly. Job satisfaction is defined as "A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences," (Locke, 1976, p. 1304). Affective commitment is "A psychological bond an employee has with his or her employer" (Meyer & Allen, 1997, p. 14). Perceived organizational support is "The extent to which employees perceive that their organization values their contributions and cares about their well-being" (Hutchison, Sowa, Eisenberger, & Huntington, 1986, p. 501). Finally, organizational climate is defined as aspects of the social environment in an organization which are perceived by employees (Patterson, Warr, & West, 2004).

Thus, there are four components of motivation. The reason why job satisfaction, affective commitment, perceived organizational support and organizational climate are classified under motivation is because of the social exchange theory. According to this theory relationships develop over time into faithful, loyal and worthy commitments (Cropanzano & Mitchell, 2005). In order to form such commitments, people have to obey rules of exchange. This exchange ideology explains that if a person gains something from the giving party, the receiving party should return the favor to the giving party (Cropanzano & Mitchell, 2005). Take for example perceived organizational support (POS). When an employee sees the organization as supportive, he or she will presumably also be supportive towards the organization (Cropanzano & Mitchell, 2005). The same applies to affective commitment, explained as the exchange of effort and devotion for material benefits and social rewards (Eisenberger, Fasolo, & Davis-LaMastro, 1990). By using the social exchange theory it becomes evident why job satisfaction, affective commitment, perceived organizational support and organizational climate are indicators of motivation. When an organization supports and takes care of an employee, they are probably more motivated to approach their employer in the same way.

## 2.1.2.3 Opportunity

The third dimension of the AMO framework is 'opportunity to perform'. According to Jiang, et al., (2012), opportunity to perform is the opportunity for employees to use their skills and motivation to perform. An aspect of this dimension is job empowerment for which different definitions can be found in the literature. Bowen and Lawler (1992, p. 32) define empowerment as "sharing with front-line employees information about an organization's performance, information about rewards based on the organization's performance, knowledge that enables employees to understand and contribute to organizational performance, and giving employees the power to make decisions that influence organizational direction and performance". However a more often used definition of empowerment is that of Conger & Kanungo (1988). According to Conger & Kanungo (1988, p. 474) empowerment is "a process of enhancing feeling of self-efficacy among organizational members through the identification of conditions that foster powerlessness, and through their removal by both formal organizational practices and informal techniques of providing efficacy information". This definition clarifies why job empowerment is an indicator of opportunity to perform. For an employee to have a chance to perform, they need to be allowed by their employer to do their job in a way that is contributing to organizational performance, and thus get the power to accomplish their tasks in the best way possible. When an employee does not feel in control of his or her actions, they will not get the opportunity to use their skills and motivation to perform in the best way possible.

#### 2.1.3 Employee performance

Employee performance is the extent to which an employee accomplishes his/her in-role and extra-role tasks (Dysvik & Kuvaas, 2012). These in-role and extra-role tasks are the aspects of employee performance. Not every researcher agrees whether in-role and extra-role behavior can be differentiated from each other. For example, Katz (1964) and Williams & Anderson (1991) distinguish in-role behavior from extra-role behavior in their research unlike Morrison (1994) who doubt whether they can be differentiated (Van Dyne & LePine, 1998). Even though there are different opinions about differentiating extra-role behavior from in-role behavior, in daily life the distinction is often made. According to Katz (1964), "in-role behavior is required or expected behavior and is the basis of regular and ongoing job performance" (Van Dyne & LePine, 1998, p. 108). Thus, in-role behavior is the required behavior of an employee to keep their job. In contrary, extra-role behavior is the not specified but expected tasks of an employee. Van Dyne, Cummings & Parks (1995) categorized extra-role behavior into four types, namely, helping, voice, stewardship and whistle-blowing. Van Dyne & LePine (1998, p. 109) define helping as "promotive behavior that emphasizes small acts of consideration". Voice is defined as "promotive behavior that emphasizes expression of constructive challenge intended to improve rather than merely criticize" (Van Dyne & LePine, 1998, p. 109).

In table 1 on the next page an overview is given of all the discussed concepts and their dimensions. In the first column the different aspects are divided under abilities, motivation and opportunity. Also the concepts employee perception of HRM practices and employee performance are included. The second column contains the definitions of the concepts discussed.

Concept	Definition
Abilities	Competences of the employee needed for task performance.
> Knowledge	Intellectual capital of an employee that can be used for the performance of tasks.
> Skills	Employees' functional or specific expertise (Subramaniam & Youndt, 2005).
Other characteristics	A general category for other factors such as personality, willingness, and interest and tangible factors as licenses, degrees, and years of experience. Which influences task performance of an employee.
Human capital	A combination of employees' knowledge, skills and abilities (Coff, 2002).
Education level	The degree to which employees are educated.
Motivation	The direction, intensity, and duration of employees' effort in performing tasks (Campbell, et al., 1993).
Job satisfaction	"A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences," (Locke, 1976, p. 1304).
Affective commitment	"A psychological bond an employee has with his or her employer" (Meyer & Allen, 1997, p. 14).
Perceived organizational support	"The extent to which employees perceive that their organization values their contributions and cares about their well-being" (Hutchison, et al., 1986, p. 501).
> Organizational climate	Aspects of the social environment in an organization which are perceived by employees (Patterson, et al., 2004).
<b>Opportunity</b> (to perform)	The opportunity for employees to use their skills and motivation to perform (Jiang, et al., 2012).
> Job empowerment	Bowen and Lawler (1992, p. 32) define empowerment "as sharing with front-line employees information about an organization's performance, information about rewards based on the organization's performance, knowledge that enables employees to understand and contribute to organizational performance, and giving employees the power to make decisions that influence organizational direction and performance".
	However a more often used definition of empowerment is that of Conger and Kanungo.
	According to Conger and Kanungo (1988, p. 474) empowerment is "a process of enhancing feeling of self-efficacy among organizational members through the identification of conditions that foster powerlessness, and through their removal by both formal organizational practices and informal techniques of providing efficacy information".
Employee perception (of HRM practices)	Employees' beliefs about a company's HR practices (Chang, 2005).
Employee performance	The extent to which an employee accomplishes his/her in-role and extra-role tasks.

Table 1. Concepts & definitions

## **3. METHODOLOGY**

To collect the data used in this review, different academic HRM journals were utilized. Using SJR (SCImago Journal & Country Rank), academic journals were selected within the subject category 'Organizational Behavior and Human Resource Management'. Here, the total of journals are divided into four quarters based on SCImago Journal Rank indicator, which is a measure of the impact, influence or prestige of an journal (Guerrero-Bote & Moya-Anegón, 2012). For journals to be selected they needed to score at least a Q2 so that the quality of the journals used for this review is guaranteed. Because time was limited, a selection needed to be made from which the following journals resulted: Asia Pacific Journal of Human Resources, British Journal of Management, Employee Relations, Human Resource Development Quarterly, Human Resource Management, Human Resource Management Journal, International Journal of Human Resource Management, and Personnel Review.

To search for articles in these journals, all possible combinations of crossing keywords selected from two groups of keywords were used. These groups consist of twenty and six keywords. HR practices were considered following Posthuma, Campion, Masimova, & Campion (2013). This resulted in the following keywords for HRM; "HRM practice", "HRM system", "high-performance work practice", "highperformance work system", "high-commitment work practice", "high-commitment work system", high-involvement work practice", "high-involvement work system", "personnel management", "recruitment", " selection", "training", "benefits", "compensation", "performance appraisal", "performance management", job design", "empowerment", "information sharing", and "participation". To search at the individual (employee) level the following six keywords were used; "perceived", "employee perception", "employee rated", "experienced", "satisfaction with", and "employee perspective". Table 2 on the next page presents the combinations of keywords which were used.

The data collection consisted of two stages. During the first stage several inclusion and exclusion criteria were used to select relevant articles. First of all, only articles between 2004 and September 2014 were selected. Earlier research indicated that at the individual level, HR practices influence employees' attitudes and behaviors which influence organizational outcomes (Huselid, 1995; Wright, McCormick, Sherman, & McMahan, 1999; Wright, McMahan, & McWilliams, 1994). However, recent, further research by Bowen and Ostroff (2004), present a more complex causal chain. This was already discussed in the introduction. According to Bowen and Ostroff (2004) employees' perceptions of HR practices are preceding employees' attitudes and behavior. Because of their research into employees' perception, the year 2004 was chosen. Further,

	Perceived	Employce Perception	Employee rated	Experienced	Satisfaction with	Employee perspective
HRM practice						
HRM system						
High-performance work practice						
High-performance work system						
High-commitment work practice						
High-commitment work system						
High-involvement work practice						
High-involvement work system						
Personnel management						
Recruitment						
Selection						
Training						
Compensation						
Benefits						
Performance appraisal						
Performance management						
Job design						
Empowerment						
Information sharing						
Participation						

Table 2. Combinations of keywords used

for articles to be included the study needed to be at employee level with employees' perceptions of HR practices. From this inclusive criteria the exclusive criteria follows that studies who investigated managers' perceptions of HR practices were excluded. Next to that, the study needed to be empirical with an outcome measure of HRM perceptions. Non-English articles were also excluded.

Online databases of the different journals were used to search for articles using the different combinations of keywords. To estimate whether an article would be of value, first the title was studied and when there were still doubts about the subject and level of analysis, the abstract was used. When necessary, the research question or hypothesis was used. This was done together with two fellow students also researching employees' perception of HR practices. The chosen journals were distributed in a way that everyone needed to analyze approximately the same amount of articles.

Next to the eight journals, also a literature review on HRM perceptions (Kooij, Jansen, Dikkers, & De Lange, 2010) was used when searching for relevant articles. In this case we used the reference list for the selection of studies. All the articles in this reference list were also assessed first by their title and if necessary their abstract. When the title and abstract were not enough to make a decision whether to include an article, hypothesis or research questions were used.

During the first search thirty-two articles were selected from Asia Pacific Journal of Human Resources, sixteen articles from British Journal of Management, twenty-six articles from Employee Relations, thirty articles from Human Resource Development Quarterly, fifty articles from Human Resource Management, seventeen articles from Human Resource Management Journal, forty-seven articles from The International Journal of Human Resource management, thirtytwo articles from Personnel Review and twenty-eight articles from the review article (Kooij, et al., 2010). So a total of 278 articles were found during the first search.

During the second stage, from this database of articles, the relevant articles for this review were selected. For articles to be relevant a new inclusive criteria was used. Studies needed to measure mediating factors at employee level affecting the relationship between employees' perception of HR practices and employee performance.

During this second search it became clear that mediating factors between employees' perception of HR practices and turnover intention was often studied. Turnover intention is defined as a deliberate willingness that employees have for leaving an organization (Bluedorn, 1982). "Turnover intention has emerged as the strongest precursor to turnover" (Joo, 2010, p. 75). According to Joo (2010), there is already a lot of research been done into the relationship between turnover intention and actual turnover of an employee that has confirmed this relation. According to Bedeian, Kemery & Pizzolatto (1991), Bluedom (1982) and Lee & Bruvold (2003) turnover intention as a behavioral intention is the single best predictor of turnover (Joo, 2010). Steel & Ovalle (1984) and Herrbach, Mignonac & Gatignon (2004) also verify intention to turnover as a highly significant determinant of an employee actually leaving the organization (Koster, De Grip, & Fouarge, 2011). Because of this direct link between turnover intention and actual turnover, during the data analysis turnover intention is seen as a performance outcome of HRM. Therefore studies investigating mediating factors between employees' perception of HR systems and employee performance are included in the tallying method of the mediating factors.

This lead to the following number of articles selected: zero articles were selected from Asia Pacific Journal of Human Resources, zero articles from British Journal of Management, one article from Employee Relations, three articles from Human Resource Development Quarterly, four articles from Human Resource Management, four from Human Resource Management Journal, thirteen articles from International Journal of Human Resource Management, two articles from Personnel Review and three articles from the review article (Kooij, et al., 2010). So a total of thirty articles were used for the data analysis of this review. An overview of the number of articles found during the first search and the number or articles used for the data analysis is given in table 3 below.

Journals	#Results	#Articles used
Asia Pacific Journal of Human Resources	32	0
British Journal of Management	16	0
Employee Relations	26	1
Human Resource Development Quarterly	30	3
Human Resource Management	50	4
Human Resource Management Journal	17	4
International Journal of Human Resource Management	47	13
Personnel Review	32	2
Review article (Kooij, et al., 2010)	28	3
Total	278	30

Table 3. Number of articles found and used

In table 4, a first order and second order-construct are presented. This table shows the operationalization for this study. In the first column the three aspects of the AMO framework are presented and in the second column the indicators of these three aspects. The concepts in this second order-construct are used for tallying the mediating factors investigated in the selected articles. For analyzing the data, a concept matrix was made using the program 'Excel'. In this matrix all concepts of interest were displayed on one axis and the articles on the other. These concepts of interest include, name of the journal, authors, year of publication, sample size, response rate, type of data (qualitative, quantitative or mixed method), type of study (cross-sectional or longitudinal), country where the data was collected, and the indicators of abilities, motivation and opportunity as displayed in table 4.

# 4. RESULTS

With the use of the concept matrix in Excel, different concepts of interest were investigated. First the findings about sample sizes, response rates, type of data (qualitative, quantitative or mixed-method), type of study (cross-sectional or longitudinal), kind of organization and countries investigated are given. After this, the results from tallying the mediating factors are given. In the discussion section, these findings, results and their will be discussed.

## 4.1 Findings

The sample sizes of the studies used varied from 102 respondents to 6584 respondents. Most studies made use of sample sizes between the 102-500 respondents (19 articles). Six studies investigated sample sizes between 501-1000 respondents and five studies used samples sizes of more than thousand respondents. The response rates differed between 13% and 83%. In fifteen studies the response rate was between 51%-83% and in 5 studies the response rate was unclear.

In all studies used for this review, the type of data was quantitative. Studies made use of a quantitative survey which was most often send along with the pay slip of the employees of interest or distributed at their work. Most studies were crosssectional, that is, in twenty-eight of the thirty articles used, data was gathered at one point in time. In two studies they made use of longitudinal research design.

Abilities	Human capital			
	Human Capitai			
The KSAO's that employees possess. Abilities are often measured using human capital and education level	A combination of employees' knowledge, skills and abilities (Coff, 2002).			
	Education level			
	The degree to which employees are educated			
<b>Motivation</b> The direction, intensity, and duration of employees' effort in performing tasks (Campbell, et al., 1993). Aspects of motivation are job satisfaction, affective commitment, perceived organizational support and organizational climate. The degree to which an employee is motivated is depending upon these components.	Job satisfaction			
	"A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences," (Locke, 1976, p. 1304).			
	"A psychological bond an employee has with his or he employer" (Meyer & Allen, 1997, p. 14).			
	Perceived organizational support			
	"The extent to which employees perceive that their organization values their contributions and cares about their well-being" (Hutchison, et al., 1986, p. 501).			
	Organizational climate			
	Aspects of the social environment in an organization which are perceived by employees (Patterson, et al., 2004).			
Opportunity to perform	-			
The opportunity for employees to use their skills and motivation to perform (Jiang, et al., 2012). For employees to use their skill and motivation they need to be in control of how they complet their tasks	Bowen and Lawler (1992, p. 32) define empowerment "as sharing with front-line employees information about an organization's performance information about rewards based on the organization's performance knowledge that enables employees to understand and contribute to organizational performance, and giving employees the power to mak decisions that influence organizational direction and performance".			
	According to Conger and Kanungo (1988, p. 474) empowerment is "a process of enhancing feeling of self-efficacy among organizational members through the identification of conditions that foster powerlessness, and through their removal by both formal organizational practices and informal techniques of providing efficacy information".			

Table 4. First and second order-construct

The sectors from which data was derived was private as well as public. In these two categories, the specific kind of organizations varied from among others, saving banks, to hospitals, manufacturing companies, hair salons and hotels.

Data came from employees of organizations located in different countries. Most data came from Norway (4 studies) and the USA (4 studies). Data came also from Spain (3 studies), the UK (2 studies), The Netherlands (2 studies), New Zealand (2 studies), Canada (2 studies) and Korea (2 studies). From Ireland, Australia, Taiwan, India, Malaysia, China, Lithuania and Copenhagen one study was used. From one article the country were the data came from was unclear.

## 4.2 Results of tallying the mediating factors

The method of tallying in the program Excel resulted in an overview of the number of articles researching specific mediating factors. In other words, an overview can be given of the frequency various mediating mechanisms were studied. This is done in table 5. The mediating factors in cursive are those who are included because of slightly different definitions used in analyzed articles or because of new factors discovered during the analysis.

In total thirty articles were used in the analysis and mediating factors were tallied fifty times. Evident is that some studies investigated more than one mediating factor at a time.

As can be seen in table 5, of the analyzed articles in this review, human capital was studied as mediating factor once, just as the general term abilities. On the other hand, the indicators of motivation were studied more often resulting in eight hits for job satisfaction, eighteen for affective commitment, three for perceived organizational support, zero for organizational climate, four articles studied procedural justice as mediating factor, and one studied interactional justice, six studies investigated intrinsic motivation, five studied engagement, one study researched psychological empowerment as mediating factor and one did for trust in management and one for trust in the organization. The indicator job empowerment was not studied as a mediating factor between employees' perception of HR systems and employee performance in the studies used for this review.

In the next section these results will be discussed.

#### 5. DISCUSSION

This narrative review of thirty articles on the mediating factors between employees' perception of HR practices and employee performance researched to which extent different mediating factors have been studied. From this implications can be formed about which mediating factors could use more research. In the results the data was described by giving the number by which each aspect of the second order-construct was investigated. Counting up these numbers results in two indicators measured for abilities, forty-eight indicators measured for motivation and zero indicators measured for opportunity as shown in table 5. Indicators of the mediating factor motivation were investigated most often, especially affective commitment which was studied eighteen times, job satisfaction which was studied eight times, intrinsic motivation was studied six times and engagement five times. As a results of these numbers, it can be said that researchers have looked into motivation as a mediating factor between employees' perception and employee performance much more often than they did into abilities or opportunity. From these results it can be derived that researchers probably expect that motivation plays a larger role as a mediating factor between employees' perception of HR systems and employee performance and therefore this dimension is investigated more often.

#### **AMO Indicators studied**

A - Abilities	<u>2</u>
Human capital	
Educational Level	
Abilities	1
M - Motivation	<u>48</u>
Job satisfaction	8
Affective commitment	18
POS	3
Organizational climate	0
Procedural justice	4
Interactional justice	1
Intrinsic motivation	6
Engagement	5
Psychological empowerment	1
Trust in management	1
Trust in the organization	1
O – Opportunity	<u>0</u>
Job empowerment	0

Table 5. Frequency of studied mediating mechanisms

In this review, the AMO framework was used to conceptualize the mediating factors. This means that the mediating factors were subdivided into one of the three aspects of the framework. During the analysis of the studies used for this review, all mediating factors could be subdivided into abilities, motivation or opportunity. This doesn't mean that this is the best framework to conceptualize the mediating factors and that there are no other mediating factors to take into account.

## 6. LIMITATIONS & FUTURE RESEARCH

Limitations of this narrative review should be taken into account when looking at the findings. The first limitation is that this review only used eight journals because of a limited amount of time. Searching these journals for articles was done together with two fellow students. Therefore the chance that relevant articles researching mediating factors were missed is somewhat bigger because not everyone was searching for specific this subject and so some articles can be overlooked. For future research it may be useful to include more journals and to look into papers that were not published to collect more data which can improve the results. Because of the time span of 2004 till September 2014, articles published before this date are not included in this review and therefore some important studies are probably being excluded. In this review, a lot of definitions are given to the different concepts used for analyzing the data. The way in which concepts are defined affects the method of tallying. Future research could make use of multiple definitions and identify whether different definitions affect results. As discussed in the previous section, there is the possibility that there are mediating factors which are not easily subdivided into abilities, motivation or opportunity. Future studies can investigate whether there are more mediating factors to take into account and whether the AMO framework is still an

appropriate framework to use. During the analysis of the studies used for this review, turnover intention was seen as a performance outcome of HRM. Future research can investigate turnover intention more thoroughly, when research is focused on this concept specifically.

Studies used for this review all consisted of quantitative data and almost all, with exception of two studies, made use of cross-sectional research. The fact that the data was gathered using quantitative surveys can have influenced results. It is imaginable that when data was gathered using qualitative studies or mixed methods, results would differ from the current data. This is something that can be studied in the future by executing the same sort of study but with data gathered in a qualitative way. Nearly all studies used in this review, with the exception of two, used cross-sectional research, meaning that data was mainly collected at one point in time. Because of this, measuring causality or reverse causality is impossible. Thus the causal order of the relationship cannot be proven. This is an important limitation because in helping opening up the 'black box' of HRM, this kind of relationships and causality are of big influence on the impact of HR practices. So even though the studies used for this review have attempted to explain the relationship between affecting employees' perception of HR systems and employee performance by examining mediating factors, the cross-sectional design in most of these studies cannot ensure causality of this mediating relationship.

#### 7. CONCLUSION

This narrative study shows into which of the three dimensions of the AMO framework most research has been done relating mediating factors between employees' perception of HR practices and employee performance. Mediating factors that were researched in the studies used for this review are human capital, abilities, job satisfaction, affective commitment, POS, procedural justice, interactional justice, intrinsic motivation, engagement, psychological empowerment, trust in management and trust in the organization. The dimension opportunity was not investigated at all in the thirty used studies. Abilities was only investigated a little. The mediating factors from the dimension motivation were in total investigated forty-eight times which means that this dimension of the AMO framework was investigated the most by far.

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\* Indicates references of articles included in the data analysis, but are not cited in the text.

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