Asking employees "the ultimate question": Developing the Employee Promoter Score

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Abstract

"The Employee Promoter Score is a new metric, derived from the Net Promoter Score that is already used in various surveys measuring the well-being of employees. In this article the Employee Promoter Score will be developed by (1) testing the construct-validity of the concept and relating it to loyalty and other related constructs and (2) identifying the HPWPs most prominent in influencing this score. This is done using (1) validated surveys send out to three nursing and home care organizations (124 respondents) and (2) benchmarkdata from 108 nursing and home care organizations in the Netherlands (56.657 respondents). It was found that the Employee Promoter Score mostly is a measure of whether or not employees are affectively committed to the organization. Next to this, the Employee Promoter Score also shows high correlations with person-organization fit (positive) and intention to leave (negative). Atmosphere in the workplace was mostly influencing the score. If there is more collegiality, people are proud to work for the organization and employees laugh a lot, the Employee Promoter Score rises. Vision and ambition, leadership and an acceptable level of workload are also important when rising the score as an organization, which means more affectively committed employees in the organization.''

Keywords: Net promoter score, loyalty, commitment, employees, fit, Employee Promoter score

1.   Introduction

The last few years have shown us signs of increased shortages in staffing because of an aging workforce (Hart, 2006). These shortages in personnel mean that organizations have to do better in attracting and retaining high potential employees, because new ones are scarce and will not be easy to find. Retaining staff and thereby reducing turnover rates is also important because turnover can be a great problem for organizations. For example in the health care sector, which is the case in this study, where turnover is an expenditure of 5% of the total annual budget (Waldman, Kelly, Arora & Smith, 2004) and nurses tend to work more via agencies than they are employees committed to the organization (Ruyter, 2008).

So, it is of great importance to increase the level of satisfaction with the work environment and thereby increase the loyalty of employees (Wright & Staw, 1999; Messersmith, Lepak & Patel, 2011). If employees are loyal members of your organization they can become promoters that can bring in talents (Davenport, Harris & Shapiro, 2010). Also, loyal employees can lead to more loyal customers, which in turn has an effect on loyalty of employees, causing a positive upward spiral (Heskett & Sasser, 2010). Because of a rising importance in strategic personnel planning and a more resource-based view on organizations (Boxall & Purcell, 2011), quantifiable metrics to measure and monitor concepts as loyalty are of increasing importance. These metrics support strategic claims and the strategic role of the HR-departments in organizations (Lawler, Levenson & Boudreau, 2004; Fitz-enz, 2009). In this research a new metric called "Employee Promoter Score'' (hereafter: EPS) will be validated and explored.

The concept EPS is derived from the concept "Net Promoter Score'' (hereafter: NPS) as proposed by Reichheld (2003). Reichheld (2003) called this "the one number you need to grow''. By asking customers one question (would you recommend this product to a friend/family?) the prospected growth of the entire company could be determined with one single measure. There is still a lot we can learn from NPS (Keiningham, Aksoy, Cooil, Andreassen, Williams, 2008), so in this article a new concept based on the notion of testing customer loyalty through NPS will be developed. Instead of asking customers the question for the product they are buying, we are asking employees if they would recommend their

employers workplace. EPS is already used in employee satisfaction surveys by JetBlue ("crewmember promoter score''), Vodafone, Symantec and other companies not to measure the loyalty of their customers, but supposedly measure the loyalty of their employees (Davenport et al., 2010). This is done by asking employees "the ultimate question'': would they recommend their organization to family and friends to work for? EPS could be a very useful way to measure the well-being of employees but has not been developed yet. As Reicheld (2003) found that the NPS could arguably be the best sole predictor for company growth, EPS as a single metric might also have great potential being a predictor of organizational outcomes, so it is a concept that certainly needs to be further developed. Being a single metric, it is also very efficient in keeping employee satisfaction surveys short.

However, when asking employees "the ultimate question", we do not yet know what we are actually measuring. Supposedly, because the score is derived from the customer loyalty measure NPS, we measure the loyalty of employees. To research what the question really means, study 1 focuses on the construct validity of EPS. So, this study relates EPS to some concepts that are conceptually close, such as loyalty, person-organization fit, intention to leave and job satisfaction. After we know what the EPS means we want to know which factors are influencing it, which brings us to study 2 of this article. This study identifies HR-instruments which are so-called "High Performance Work Practices" that are most prominently influencing the EPS. Following up on research by Eskilden & Nussler (2000), who studied different antecedents and effects of employee loyalty with Structural Equation Modeling, study 2 uses this technique to identify the antecedents influencing the EPS.

This article is innovative in two main ways. First, study 1 determines the construct validity of the Employee Promotor Score, because it has not been validated before. In this way, it can be determined whether the concept truly measures employee loyalty (Reichheld, 1993; Michlitsch, 2000). Study 2 seeks to identify the High Performance Work Practices most prominently influencing this score. This research is an addition to the existing body of literature on the fields of loyalty, Net Promoter Score, theories of job characteristics, ''High Performance Work Practices'' and person-organization ''fit'' (Hackman & Oldham, 1976; Atkins, Marshall & Javalgi, 1996; Kristof, 1996; Duboff & Heaton, 1999; Michlitsch, 2000; Gould-Williams, 2004; Vandenabeele, 2008; Levin, 2011).

The goal of this research is to test what is measured with the Employee Promoter Score and identify the factors that influence it, which brings us to the central question of this research.

The central question of this research is:

"What is measured with the Employee Promoter Score (study 1) and which factors regarding High Performance Work Systems influence it (study 2)?''

First, in the next section, the theories used in this study will be outlined. Here, theories of Net Promoter Score, employee loyalty, fit (important in measuring the construct validity of the concept) and High Performance Work Practices (the antecedents of employee loyalty) will be reviewed. Second, the methods, data collection and variables that are used in this study can be found in section three. In section four, the results of the validation of EPS and the model as a whole will be outlined. In section five, the final chapter, the conclusions, discussion and limitations can be found.

2. Theoretical background

For study 1, first, the concepts Net Promoter Score and Employee Promoter Score will be outlined, as well as loyalty which is important when assessing what EPS actually measures. Second, theories of fit will be explored because the concept might be strongly related to whether employees are willing to recommend their workplace. Lastly for study 2, theories of "High Performance Work Practices'' will be outlined, because they are important in seeking which factors are mainly influencing EPS.

2.1 Study 1

2.1.1 Net Promoter Score

The Employee Promoter Score, the main concept of this article, is derived from the Net Promoter Score. The Net Promoter Score was first introduced as a single metric to predict the growth of companies by asking customers the "ultimate question'', namely if they would recommend the product manufactured by the company to family and friends on a scale of 0 to 10 (Reichheld, 2003). Based on the conception that it is easier to retain recurring customers than to find new ones and that loyal customers are most likely to refer new customers (Kinney, 2005), a calculation of the ratio of promoters/detractors is made to calculate the loyalty of customers and predict future growth. This is done by subtracting the number of detractors (customers that answered 0-6 on "the ultimate question'') from the number of promoters (customers that answered 9 or 10 on this question). The other customers are passively satisfied and will not be taken into account (Reichheld, 2003). In this way, a new metric outside the black box (or maze) of complex customer satisfaction metrics emerges that can be linked to growth and is thereby a concept that has a lot of potential for analysis and external or internal benchmarking (Reichheld, 2003). The NPS is valued as a good way to assess the level of service in the health care sector (Kinney, 2005).

Despite of the popularity of NPS as a single concept to measure customer loyalty and predict growth, there has been much criticism about the concept. Morgen & Rego (2006) found that NPS did not have a significant relationship with future business performance at all and even had a significant negative impact on future gross margins. Keiningham et al. (2008) have also criticized the concept, saying that loyalty is something that all managers want, but not all attitudes of loyalty are translated into loyalty behaviors. However, they do state that NPS can be a useful metric, but not as the only "ultimate question''. Another discussion regarding NPS is whether or not it is useful to convert the data measured on a scale of 0-10 to three groups of promoters, passively satisfied customers and detractors (McGregor, 2009).

2.1.2 Employee Loyalty and commitment

In the same way as customer loyalty is something managers strive to attain, employee loyalty is also an important concept for organizations and managers. In order to test the construct-validity of the single-item metric EPS, it is important to explicate what is meant with loyalty, because this is what EPS supposedly measures. Although there has been reasonable scholarly attention to employee loyalty, it is still *"casually defined''* (Hart & Thompson, 2007:297). It is strongly related to organizational commitment, and most studies use three types of commitment (affective, calculative and normative) to conceptualize loyalty (Bloemer & Odekerken-Schröder, 2006; Hart & Thompson, 2007). Affective commitment is the employee's attachment to, identification with, and involvement in the organization. Calculative or continuance commitment is the awareness of the costs associated with leaving the organization and is based on a need to stay in the

organization rather than willingness to do so. Normative commitment is based on employees' feelings that they ought to remain in the organization, because of normative reasons (Hart & Thompson, 2007).

Hart & Thompson (2007) argue that loyalty is very much related to commitment and takes up the same conceptual space but loyalty introduces a normative component which is not so much associated with when using the term commitment. They state that there is more stigma associated with being disloyal then with choosing not to commit. In this way loyalty is more of an attitude or duty, whereas commitment is more of a choice. An exception to this is the inclusion of normative commitment (Allen & Meyer, 1990;1996; Coughlan, 2005; Hart & Thompson, 2007). As is done in this study, by including normative commitment in the scale, the normative component of loyalty is added to the concept of commitment (Hart & Thompson, 2007). So, Hart & Thompson (2007) still note that the three types of commitment are the core of their definition of loyalty which is as follows: *''an individual's perception that both parties to a relationship have fulfilled reciprocal expectations that 1) denote enduring attachment between two parties, that 2) involve self-sacrifice in the face of alternatives, and that 3) are laden with obligations of duty''* (Hart & Thompson, 2007:300). This threefold definition clearly consists of the three commitment indicators as identified by Allen & Meyer (1990;1996), because attachment (affective commitment), self-sacrifice (calculative commitment) and obligations of duty (normative commitment) are involved.

This means that when quantifying and measuring loyalty you are measuring the three commitment indicators because they take up almost the same conceptual space (Coughlan, 2005; Hart & Thompson, 2007). Because of this, and because scales specifically regarding loyalty have not yet been developed, commitment will be used to test the construct validity of the Employee Promoter Score for the rest of this article. This study seeks whether EPS measures commitment as a whole (the three commitment components) or if it is a measure of one or two specific components of commitment. For example, it could very well be the case that the EPS is more of a measure of a state of affective feelings than normative or calculative ones.

Tying together loyalty and growth has not yet been done properly by companies regarding customers (Keiningham et al., 2008) but a connection between employee loyalty and growth has been proven multiple times (Duboff & Heaton, 1999; Michlitsch, 2000; Eskilden & Nussler, 2010). Employees that are loyal to the company are key in retaining loyal customers (Reichheld, 1993). This can lead to a service profit chain that creates a multiplier effect, because when loyalty among employees rises, it leads to loyal customers because of good contacts with these employees, which in turn leads to more loyal employees and so on (Heskett & Sasser, 2010). Duboff & Heaton (1999) have already linked loyal employees to growth and they stress the importance of loyal employees in retaining talent in your company. Davenport et al. (2010) also indicate that a high level of employee loyalty can be a great way of bringing in talent and retaining this talent.

2.2.3   *Attractiveness and fit*

A concept closely related to commitment and the question whether or not employees will recommend their employer to friends and family is person-organization fit. By increasing the fit between employees and the organization, organizations will become more attractive to their employees, thus employees might be more willing to recommend their employer (Kristof, 1996). So, in this study, person-organization fit is used to relate the EPS with, for the validation of EPS as a construct. The attractiveness of the employer plays an important role in attracting, selecting and retaining employees (Schneider, 1995; Kristof, 1996; Vandenabeele, 2008). First, the organization will be more attractive to potential

employees that fit with the organization, meaning that they can select employees from a larger pool. Because of this, the organization will be able to select more productive employees and because of the attractiveness it is easier to retain certain talents in your organization, and this is where loyalty comes in. By raising the organizations fit with employees, they will be more loyal and will be less likely to leave (Kristof, 1996). Measures of person-organization fit can employ: *"1) direct measurement of perceived fit, 2) indirect cross-levels measurement of actual fit, or 3) indirect individual-level measurement of actual fit.''* (Kristof, 1996:33).

Boon, den Hartog, Boselie & Paauwe (2011) provide insight in how person-job and person-organization fit are important when relating HR-practices to performance indicators. Perceptions of person-job and person-organization fit relate significantly to outcomes and, just as is the case with commitment, HR-practices can be used to alter the level of fit (Moynihan & Pandey, 2007). Person-organization fit also can interact with the effect of HR-practices on outcomes themselves. E.g. when person-job or person-organization fit is low, HR-practices aimed at decreasing intention to leave may have very little effect (Boon et al., 2011). Janssen, de Jonge & Bakker (1998) found that for nurses, the quality of the job content can have an influence on the intrinsic motivation. Thus, the question now rises what aspects of the job can be altered to create more fit and if EPS is more related to commitment or person-organization fit.

The expectation is that person-organization fit can be closely related to the question whether an employee would want to recommend his job to his friends and family. When relating HPWPs to EPS, which is done in the second part of this study, it is also of important to relate the score to the two other concepts (next to commitment and p-o fit) which are influenced by HPWPs, according to Boxall & Purcell (2011). Next to commitment, these two concepts are job satisfaction and intention to leave. It might just be that the question whether or not an employee is recommending their employer means that the employee is satisfied with his or her job. Or, intention to leave might be strongly negatively correlated with the Employee Promoter Score. Still an even higher correlation is expected with commitment, because the Employee Promoter Score is derived from the Net Promoter Score, which measures the loyalty of customers. Affective commitment looks like a concept most closely related to this though, more than normative and calculative commitment are. This is where the construct-validity of the Employee Promoter Score is tested.

H1: The Employee Promoter Score is a measure of affective, normative and calculative commitment, more than it measures person-organization fit, job satisfaction or intention to leave.

2.2   Study 2: High Performance Work Systems

When the first part of this study is conducted, we know more about what the Employee Promoter Score measures. Next, the drivers that influence this score are identified. Michlitsch (2000) identifies several causes of employee loyalty. He argues that loyal, high performing employees are influenced by the vision of a company, selection and training, company culture, communication and information and rewards. These are the cornerstones in creating high-performing, committed employees that are very valuable (Michtlitsch,2000:33).

In this research different HR-practices that are commonly called ''High Performance Work Practices'' (hereafter: HPWPs) will be identified as possible drivers for employee loyalty. Some HPWPs used in this study stem from Mitchlitsch (2000) model, for example vision and ambition of an organization, training and communication and information. HPWPs are HR-practices *"that involve reforms to work practices to increase employee involvement in decision making and companion*

investment in employee skills and changes to performance incentives to ensure they can undertake these greater responsibilities and want to do so" (Appelbaum, Bailey, Berg & Kalleberg, 2000). HPWPs focus on increasing PIRK-factors (Power, Information, Reward and Knowledge) and provide direction setting for employees (Boxall & Purcell, 2011). These factors increase the organizational effectiveness (turnover rates, return on equity) directly, but also through the adjustment of psychological attitudes of the workforce. By increasing the PIRK-factors with HPWPs, organizational commitment and job satisfaction are increased and intention to leave is decreased. This has a mediating effect on organizational effectiveness, which then increases (Boxall & Purcell, 2011; Huselid 1995).

There has been little consistency in selecting HR-practices in strategic HRM-research (Boon et al., 2011). In their study, Boon et al. (2011) use seven HPWPs namely: training, autonomy, rewards, teamwork, work-life balance, recruitment and employment security. According to Boxall & Purcell (2011), seven HPWPs exist, namely: employment security, selective hiring, self-managed teams or team working, high pay contingent on company performance, extensive training, reduction of status differences and sharing information. Gould-Williams (2004) uses another set of HPWPs in determining the attitude of employees. While researchers are not unanimous about which HR-practices can be called HPWPs, Gould-Williams (2004) provides a review of the literature on the subject and uses the following HPWPs as indicators for HPWPs, some overlapping the Mitchlitsch (2000) model: Relation with boss and coworkers, Involvement, Job security, Opportunities for training, Job variety, Team Working, Rigorous selection process, Communication, Pay for performance and Empowerment.

In this study, the HPWPs that are identifiable from the benchmark data used in this study (validated by Tummers, Lankhaar & Groeneveld, 2012) are used. These items include leadership (relation with boss), teamwork, autonomy, communication and information sharing, training opportunities and vision and ambition (providing direction setting). All of these practices focus on increasing PIRK-factors of employees and are in accordance with earlier research regarding HPWPs. An acceptable work pressure, which increases PIRK-factor power, is included because of the specific nature of the sector which was researched (nursing and home care) in which this concept is important because it typically has a high workload which has an effect on other variables (Van Bogaert, Clarke, Willems & Mondelaers, 2012; Greenglass, Burke & Fiksenbaum, 2001). Another added concept in this study is work atmosphere, which was developed in an article by Tummers, Lankhaar & Groeneveld (2012). It is a measure of pleasure at work, a good team spirit and good collegiality. Tzeng (2002) already found that working atmosphere is important in influencing intention to leave (which is the same for other HPWPs).

H2: HPWPs will have a positive influence the Employee Promoter Score.

Tying together the eight HPWPs selected in this study with EPS, a conceptual model for study 2 as presented in figure 1 emerges. The expectation is that HPWPs will have a significant impact on the Employee Promoter Score.

Figure 1 Conceptual model
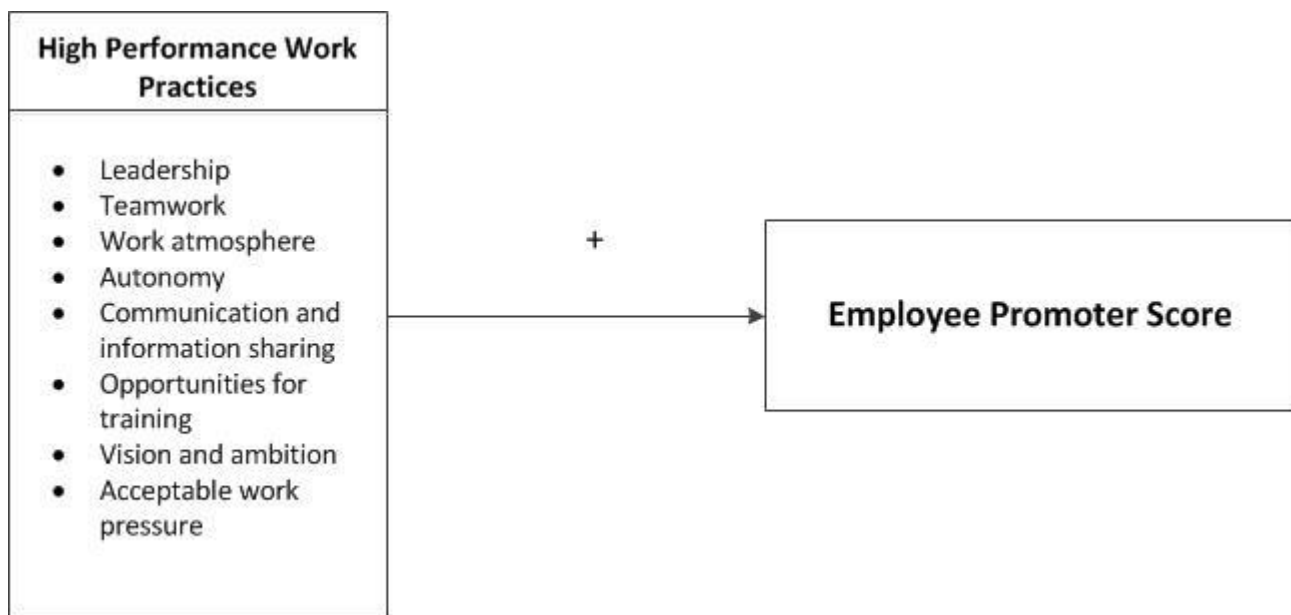
3. Methods

In this section, the methods used for the different aspects of this study will be outlined. In the first paragraph, the sample, method and survey used in assessing what the EPS measures can be found. The second paragraph is concerned with the data collection, variables and way of analysis used in study 2.

3.1 Study 1

For hypothesis 1, the construct validity of EPS as an indicator for loyalty is tested.

3.1.1 Data collection

A sample of three nursing and homecare organizations in the Netherlands (124 respondents, response rate 41%), derived from the benchmark database used in study 2, received a new survey including the measurements of loyalty (consisting of three commitment indicators), EPS, person-organization fit, job satisfaction and intention to leave. The average age of these employees was 44.2 years old, which only slightly differs with international findings of Buerhaus, Staiger & Auerbach (2000), who stated the average age of nurses would be 45.4 years in 2010 and Dutch numbers that show an average age of 45-46 (UWV, 2013). 88.1% of the valid respondents (after listwise deletion of missing values) were women, which is also only slightly below the 90.4% that HRSA (2010) found. Because the figures of the population are consistent with the sample figures, no non-response bias is expected. 45% of the respondents worked for over 10 years for their current employer.

3.1.2 Measures

The means and standard deviations of the following scales can be found in section 4.1.

EPS

The EPS was measured by one item: *"I would gladly recommend my family, friends and acquaintances to work for this organization''* on a scale of 0 to 10 (Reichheld, 2003).

Commitment

Commitment, used as the measure for loyalty in this article (Hart & Thompson, 2007), consists of three components. It was translated into Dutch by De Gilder (1997) and validated in a study by Jak & Evers (2010) who used items from Allen & Meyers (1990;1996) research. In the validated study 4 items originally used by Allen & Meyer (1990;1996) were deleted because of a lack of validity in the Dutch language (Jak & Evers, 2010).

Affective commitment is measured using five items on a 5-point Likert scale. An example of a statement is: *"I have a feeling I really belong to this organization''* (1= completely disagree, 5= completely agree). The Alpha coefficient of this scale was 0.863.

Calculative commitment is measured using five items on a 5-point Likert scale. An example of a statement is: *"If I quit it would be hard to find a similar job''* (1= completely disagree, 5= completely agree). The Alpha coefficient of this scale was 0.606. This is a lower reliability coefficient but will be used for the rest of this study, since this is a complex psychological construct and the value is still above .6, with good model fit values (Field, 2006; Hair, Black, Babin, Anderson, & Tatham, 2006).

Normative commitment is measured using four items on a 5-point Likert scale. An example of a statement is: *"I feel obligated to my current employer to stay at this job''* (1= completely disagree, 5= completely agree). The Alpha coefficient of this scale was 0.874.

Person-organization fit

Person-organization fit (Kristof, 1996) was measured using a scale validated by Cable & DeRue (2002) and later Hinkle & Choi (2009). The scale consists of three items on a 5-point Likert scale, namely*: (1)"the things that I value in life are very similar to the things that my organization values'', (2) "my personal values match my organization's values and culture'' and (3) "my organization's values and culture provide a good fit with the things that I value in life''* (1= completely disagree, 5= completely agree). The Alpha coefficient of this scale was 0.875.

Job Satisfaction

For measuring job satisfaction, a scale called ''The Brief Index of Job Satisfaction'' developed by Thompson & Phua (2012) is used. This scale consists of 4 items on a 5-point Likert scale. An example of a statement is: *"I find real enjoyment in my job''* (1= completely disagree, 5= completely agree). The Alpha coefficient of this scale was 0.826.

Intention to leave

Intention to leave is measured with a scale developed by Bozeman & Perrewé (2001), consisting of 4 items on a 5-point Likert scale. An example of a statement is: *"If I could, I would quit today''* (1= completely disagree, 5= completely agree). The Alpha coefficient of this scale was 0.861.

Analysis

Using a Confirmatory Factor Analysis (CFA) the groups of items that are most likely to measure the same concept are assessed (Brown, 2006). After the three latent variables that commitment consists of have been established, the correlation

of these latent variables with the Employee Promoter Score will be calculated. If this correlation is significant on a .01 level, the Employee Promoter Score measures these latent variables, and there is evidence of strong convergent validity. Also, if the EPS does not correlate significantly with the control-variable years working for employer, there is evidence of divergent validity. The results of the CFA can be found in section 4.3.

3.2   Study 2

For the second part of this study, a survey questionnaire developed by PwC in collaboration with ActiZ for benchmarking purposes in the nursing and home care sector was used to assess the level of loyalty and HPWPs.

3.2.1   Data collection

The data was collected in 108 organizations with 56.657 respondents by means of a secondary analysis on the data. These organizations represent about 24% (RIVM, 2013) of the nursing and home care sector in the Netherlands. This benchmark is conducted in several rounds (twice a year) and for this study the rounds ''autumn 2012'' and ''spring 2013'' were used, since these rounds include the Employee Promoter Score. The survey was taken in Dutch and the mean response rate for the organizations that participated in the two rounds was 44%.

Of the valid respondents (after listwise deletion), 91.3 % were women. This is consistent with international findings of Keepnews, Brewer, Kovner & Shin (2010) and HRSA (2010) who found an average of 9% males among three generations (Babyboomers, X and Y) of nursing staff. About 57% had a nursing function or was in training. The number of women in the Dutch healthcare sector is 90 % (UWV, 2013). Most respondents (36.4%) fell into the age range of 46-55, followed by 36-45 (22%), 56 and older (19.7%), 26-35 (13.1%) and 25 and younger (8.8%) which represents an average age of approximately 45 years. This is consistent with findings of Buerhaus, Staiger & Auerbach (2000), who found that the average age of nurses would be 45.4 years in 2010 and HRSA (2010) who found that in 2008 the average age of nurses was 46 years. Dutch figures also show an average age of 45-46 in the nursing and home care sector, so no non-response bias is expected (UWV, 2013). Most respondents (64%) worked in the nursing and homecare sector for over 10 years. In addition, most respondents (46.6%) also worked more than 10 years for their current employer.

3.2.2   Measures

The EPS was measured by one item: *"I would gladly recommend my family, friends and acquaintances to work for this organization''* on a scale of 0 to 10 (Reichheld, 2003). Next to this, different kinds of HPWPs were included in the survey.

High performance work practices
The concepts used in this study find their roots in the HPWP literature. All HPWPs were measured on a 4-point (1=never, 4= always) or 5-point (Likert) scale (1=completely disagree, 5=completely agree). Different numbers of items were used for these concepts. Wright & Nishii (2004) have made a compelling case that it is important to keep the process model of HRM practices in mind when assessing the extent of HPWPs used. The perceived HR-practices and the reaction of employees to these practices lead to forms of organizational performance, not the intended HR-practices themselves.

Leadership was measured using five items on a 4-point scale. An example of a statement is: *"My direct supervisor inspires and motivates me''.* The Alpha coefficient of this scale was 0.900.

Teamwork was measured using two items on a 5-point scale. An example of a statement is: *"The work environment in my team/department is good''*. The Alpha coefficient of this scale was 0.936.

Working atmosphere was measured using four items on a 5-point scale. An example of a statement is: *"We laugh a lot in my team/department''*. The Alpha coefficient of this scale was 0.748.

Autonomy was measured using three items on a 4-point scale. An example of a statement is: *"There is room for me to make my own decisions''*. The Alpha coefficient of this scale was 0.762.

Communication and information sharing was measured using three items on a 4-point scale. An example of a statement is: *"Our organization stimulates me to work together with other teams or people within the organization''*. The Alpha coefficient of this scale was 0.701.

Opportunities for training was measured using three items on a 5-point scale. An example of a statement is: *"My organization gives me enough possibilities to develop myself within my organization''*. The Alpha coefficient of this scale was 0.845.

Vision and ambition was measured using three items on a 5-point scale. An example of a statement is: *"I sense that my organization wants to be better than other organizations''*. The Alpha coefficient of this scale was 0.774.

Work pressure was measured using six items on a 4-point scale, with higher values representing a more acceptable work pressure. An example of a statement is: *"The physical demand of the work I'm doing is acceptable''*. The Alpha coefficient of this scale was 0.780.

Since all concepts have a Cronbach Alpha higher than 0.7, the scales of items used for the constructs are considered reliable (Field, 2005). Although these values are high, the items for the concepts are not based on validated scales because of the practical use of the dataset for benchmark purposes. The reliability of the scales used in the questionnaire has been positively tested in earlier benchmark rounds in a study by Tummers, Groeneveld & Lankhaar (2012). The concept working atmosphere also stems from this study. To further test the reliability of the model, a confirmatory factor analysis is conducted. The means, standard deviations and alphas can be found in section 4.1.

3.2.3   *Confirmatory factor analysis*

Before SEM can be conducted in the results section, it is important to first validate the latent variables using a Confirmatory Factor Analysis which can be found in table 1. All cases with one or more missings on the variables included in the model were deleted listwise. Based on lower factor loadings, high modification indices and a recommendation of Kenny (1979) that having four items for a latent variable is best and more is "gravy'', two variables for work pressure and one item for leadership have been removed. Also, one item on the organizational culture scale was deleted. Furthermore, no error terms were correlated (which is generally done to improve the model fit) because of a recommendation by Hooper , Coughlan & Mullen (2008:56) who state that *"this practice is generally being frowned upon''* as it means that there is another force outside the specified model that is causing the covariation. For adding these correlated error terms strong theoretical justification is needed, which is not available for the variables in this study. The values of the standardized factor loadings were high (ranging from .69-.95) which indicates evidence of convergent validity. The following values in table 1 represent the values of the model fit after leaving out the two variables for work pressure:

Table 1 Model fit values for the used theoretical model

CFI	TLI	RMSEA	GFI
0.915	0.900	0.065	0.935

The values for CFI and TLI are above the commonly used values of > 0.9 to indicate good model fit and GFI is also above this threshold. The RMSEA is 0,065 which indicates good fit, because it is lower than 0.8 (Hooper et al., 2008). Because these values are acceptable, this model will be used in this study.

3.2.4   Analysis

After conducting a Confirmatory Factor Analysis (which can be found in table 1) a statistical technique to analyze the likelihood of the structural model is used. To relate the HPWPs to the employee promoter score a technique called Structural Equation Modeling is used, using AMOS 20.0. Structural Equation Modeling is a useful tool for analyzing the likelihood of a constructed structural model containing various latent variables (Brown, 2006). An advantage to SEM over normal regression is that random or measurement error in indicators of latent variables can be modeled and estimated explicitly (Bagozzi & Yi, 2011) Also, the fit of the model can be assessed more precisely with CFA.

3.3 Generalizability of these findings to other sectors

The data used in this study comes from a large database, containing nursing and home care organizations in the Netherlands. This can pose a threat to the external validity of this research to other sectors. The healthcare sector typically has a high degree of workload which has an effect on other variables (Van Bogaert, Clarke, Willems & Mondelaers, 2012; Greenglass, Burke & Fiksenbaum, 2001) so the expectation is that the effect size of this variable in the healthcare sector could be greater than other sectors. Although Mook (1983) argued that the need for external validity in psychological science is exaggerated, it could very well be that there are differences in why people tend to recommend their employer across sectors. So, further research in other sectors needs to be conducted but the results in this study are a good indicator of results in other sectors and are replicable, while the concepts used in this study are not specific to the healthcare sector and can be used across sectors.

4.   Results

4.1   Study 1

4.1.1.   Descriptive statistics

The descriptive statistics of study 1 can be found in table 2. Job satisfaction had the highest average score. P-O fit and affective commitment had the second and third highest scores. Intention to leave had the lowest value with 1.94 on a Likert scale. Calculative commitment only significantly correlated with intention to leave on a 0.01 level. The Employee Promoter Score correlated significantly with five variables on a 0.01 level. Intention to leave also correlated significantly with five variables, but did not correlate on a 0.01 level with person-organization fit.

Table 2 Concepts, Means, SDs, and Correlations between variables

Variable	N	Mean	SD	1	2	3	4	5	6
1. P-O fit (1-5)	124	3.57	0.767	-					
2. Affective commitment (1-5)	124	3.38	0.729	.531**	-				
3. Calculative commitment (1-5)	124	2.89	0.881	-.088	.048	-			
4. Normative commitment (1-5)	124	2.61	0.812	.265**	.434**	.148	-		
5. Job satisfaction (1-5)	124	4.06	0.627	.177	.393**	-.193*	.187*	-	
6. Intention to leave (1-5)	124	1.94	0.808	-.166	-.353**	.331**	-.280**	-.553**	-
7. Employee Promoter Score (0-10)	124	7.04	1.531	.421**	.566**	-.230*	.364**	.386**	-.439**

$*p < 0.05$ $**p < 0.01$ (2-tailed)

### *4.1.2 Construct validity of the Employee Promoter Score*

To see what the Employee Promoter Score measures, a Confirmatory Factor Analysis is performed on the first questionnaire. The latent variables that correlate more highly with each other are regarded as constructs that show a lot of similarity. All variables with factor loadings lower than .55 were deleted from the model. To assess the level of common method bias, a Harman one-factor test was performed. All items were loaded on one factor in an exploratory factor analysis, after which the factor explained 27% of the variance, which is not the majority. Therefore, it is plausible that there is no common method bias (Podsakoff, P.M., MacKenzie, Lee, Podsakoff, P.M., 2003). The following values in table 3 represent the values of the model fit after leaving out three variables for calculative commitment and one variable for job satisfaction, intention to leave and affective commitment:

Table 3 Model fit values

CFI	TLI	RMSEA
0.941	0.924	0.062

Because the model had good model fit (Hooper et al., 2008) the Confirmatory Factor Analysis was done over this model. The results of the four variables with the highest correlation with the Employee Promoter Score can be found in figure 2. Note that this is a simplified model. It does not show indicators of latent variables, non-significant latent variables, covariances between all latent variables or exogenous factor variances. A more detailed model can be found in Appendix 1.

Figure 2 Confirmatory Factor Analysis
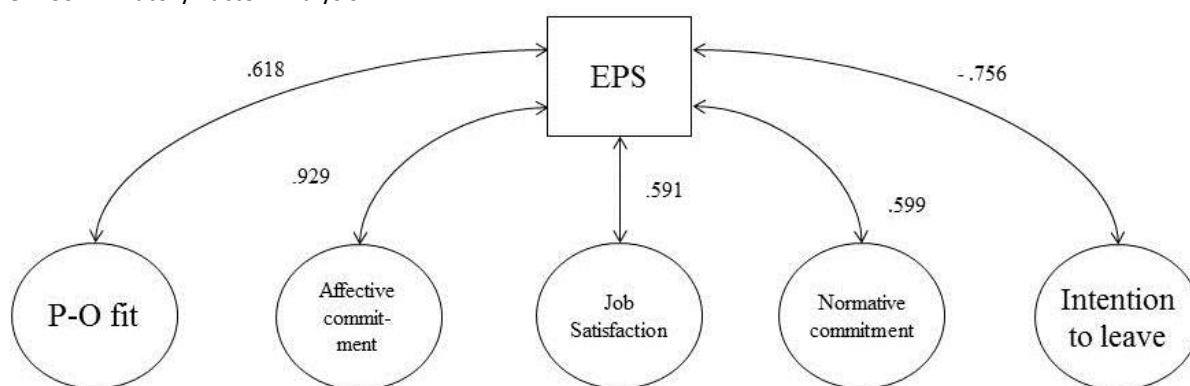
Five of the six latent variables used in this study proved to correlate significantly with the Employee Promoter Score on a 0.01 significance level. The correlations of these variables were of different sizes. The correlations of all the latent variables and their p-values can be found in table 4.

Table 4 Standardized correlations of the different latent variables and significance

Variable	Correlation with Employee Promoter Score	p-value
Person-Organization fit	.618	.000**
Affective commitment	.929	.000**
Job satisfaction	.591	.000**
Intention to leave	- .756	.000**
Normative commitment	.599	.000**
Calculative commitment	- .103	.016*

*p <.05 **p <.01 (2-tailed)

When years working for current employer was added to the model, in did not covariate significantly with the Employee Promoter Score. The correlation of the two variables is - .162, which is lower than the significant latent variables used in this model. This means that there are no divergent validity issues for this model. Hypothesis one is accepted for affective and normative commitment and rejected for calculative commitment for this model.

4.2   Study 2

4.2.1   Descriptive statistics

The means, SDs and reliability coefficients for the variables used in this study can be found in table 5. Teamwork relatively scored highest with a 4.09 on a 5-point scale. Organizational culture was the second highest rated HPWP. Of all HPWPs, communication and information sharing and vision and ambition scored the lowest. With a 2.96 on a 4-point scale, acceptable work pressure was rated lower than all the HPWPs.

Table 5 Concepts, Means, SDs, and Reliability Coefficients

Variable	N	Mean	SD	α
1. Leadership (1-4)	56.657	3.10	0.709	0.900
2. Teamwork (1-5)	56.657	4.09	0.982	0.936
3. Work atmosphere (1-5)	56.657	3.95	0.662	0.748
4. Autonomy (1-4)	56.657	3.22	0.570	0.762
5. Communication and information sharing (1-4)	56.657	3.11	0.618	0.701
6. Opportunities for training (1-5)	56.657	3.87	0.772	0.845
7. Vision and ambition (1-5)	56.657	3.72	0.755	0.774
8. Acceptable work pressure (1-4)	56.657	2.96	0.502	0.780
9. Employee Promoter Score (0-10)	56.657	7.58	1.630	

Table 6 Correlations between variables

Variable	1	2	3	4	5	6	7	8
1. Leadership	-							
2. Teamwork	.291**	-						
3. Work atmosphere	.489**	.539**	-					
4. Autonomy	.470**	.271**	.432**	-				
5. Communication and information sharing	.579**	.343**	.533**	.573**	-			
6. Opportunities for training	.553**	.336**	.605**	.448**	.521**	-		
7. Vision and ambition	.428**	.243**	.489**	.311**	.439**	.519**	-	
8. Acceptable work pressure	.400**	.261**	.410**	.360**	.394**	.397**	.372**	-
9. Employee Promoter Score	.484**	.319**	.559**	.375**	.460**	.531**	.501**	.416**

*$p < 0.05$ **$p < 0.01$ (2-tailed)

All the correlations between the variables were significant. Variable one through eight are High Performance Work Practices so it is expected that these correlate highly with each other and with the Employee Promoter Score. Work pressure, although correlating lower, also correlated with all High Performance Work Practices and the Employee Promoter Score.

4.2.2.   Structural model

The aim of this part of the article is to assess which factors influence the Employee Promoter Score. Factors that are significant at a 0.01 level and their standardized coefficients (β) can be found in figure 3. Note that this is a simplified model. It does not show indicators of latent variables, non-significant latent variables, covariances between all latent variables or exogenous factor variances. A more detailed model can be found in Appendix 2. In table 7, all the standardized regression weights, their p-values and the explanatory power (R^2) of the model are outlined. To assess the level of common method bias, a Harman one-factor test was performed. All items were loaded on one factor in an exploratory factor analysis, after which the factor explained 35% of the variance, which is not the majority. Therefore, it is plausible that there is no common method bias (Podsakoff, P.M., MacKenzie, Lee, Podsakoff, N.P., 2003).

Six of the eights independent variables used in this study were significant in predicting the Employee Promoter Score on a 0.01 level. Only communication and information sharing and opportunities for training were not significant. The rest of the HPWPs are significantly influencing the Employee Promoter Score. Therefore, we do not reject Hypothesis 2. Work atmosphere had the highest standardized regression weight (β= .579, p< .01) and vision and ambition has the second highest standardized regression weight with .124 (p< .01). Work pressure had a standardized regression weight of .109 (p< .01). The High Performance Work Practices have lower standardized regression weights, although leadership (β= .098, p< .01), teamwork (β= -.068, p< .01) and autonomy (β= .042, p< .05) were still significant. These values stand for, all other things being equal, an increase of the Employee Promoter Score of the β-score when the concerned variable is increased by 1. The total variance (R^2) explained by the model for the Employee Promoter Score was .69, which is high (about 69%). There was a good overall model fit for the model, with a CFI of .917 (threshold is > .9), TLI of .900 (threshold is > .9) and RMSEA of 0.064 (threshold is < .08). For the control variables, age and gender had significant impact on the EPS, with lower β's then the HPWPs. Years working for the current employer had no significant influence on the EPS.

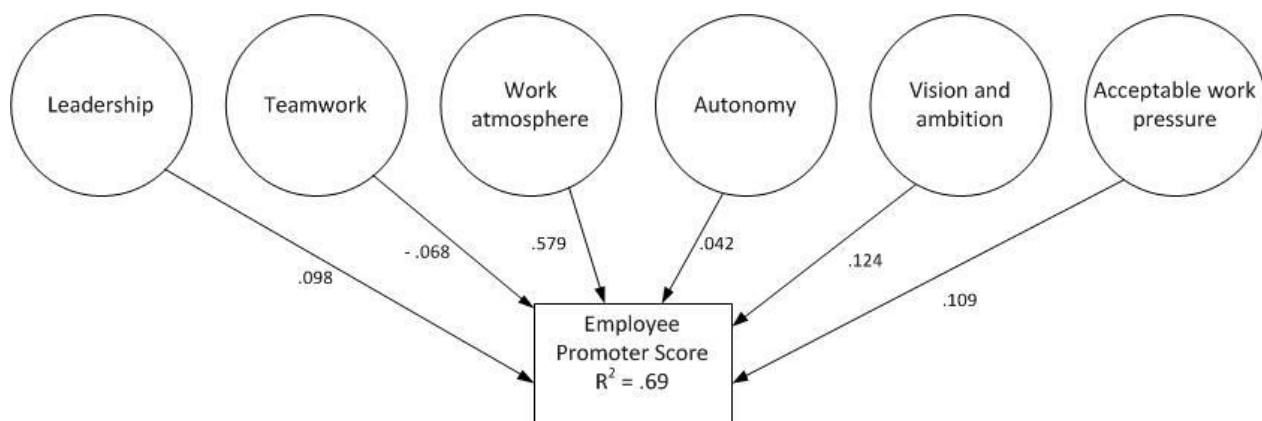**Figure 3** Structural Equation Model for HPWPs on the Employee Promoter Score

Table 7 Standardized (β) and unstandardized (b) regression weights and significance (p-value)

Variable	β	b	p-value	R^2
Leadership	.098	.198	.000**	
Teamwork	-.068	-.137	.000**	
Work atmosphere	.579	1.167	.000**	
Autonomy	.042	.085	.004**	
Communication and information sharing	NS	NS	.735	
Opportunities for training	NS	NS	.198	
Vision and ambition	.124	.249	.000**	
Acceptable work pressure	.109	.219	.000**	
Gender	-.017	-.034	.000**	
Age	.014	.029	.001**	
Years working for employer	NS	NS	.273	
Employee Promoter Score				.69

5. Conclusion

The goal of this study was two-fold. First, the construct validity of the Employee Promoter Score was tested by a questionnaire completed by 124 respondents. This has not been done before so this is researched to see what is measured with the "ultimate question''. Second, the factors influencing this score were identified to see which HPWPs were influencing the question whether or not employees would recommend their workplace. Here, data from a benchmarkstudy with 56.657 respondents was used with a confirmatory factor analysis and structural equation modeling.

For study 1, the results show remarkable outcomes. While Reicheld (2003) called his concept of measuring the Net Promoter Score "customer loyalty", this definition cannot be extended to employees. The definition of loyalty by Hart & Thompson (2007) as an attitude or duty consisting of affective, normative and calculative commitment is not in coherence with the Employee Promoter Score. As already noted, affective commitment is much more alike the Employee Promoter Score than normative commitment and calculative commitment, which is not even significant. While normative commitment is still correlating highly with the score, there are great differences between the three types of commitment and affective commitment is almost perfectly correlating with the Employee Promoter Score. This means the ''recommendation question'' is more like a state of affective feelings to the organization and committing because of that, than truly being loyal as a whole. It is remarkable that person-organization fit is also very akin to the Employee Promoter Score. So, the Employee Promoter Score is also a measure of how well an employee fits within the organization and if his or her values overlap with the organizations values. When employees tend to recommend their organization more, they are also saying that the culture of the organization is one which employees also value in their personal lives. Last but not least, the Employee Promoter Score also correlated very highly with intention to leave. Employees within organizations with a higher Employee Promoter Score are less likely to quit. Although, based on the analysis, it seems that first and foremost the Employee Promoter Score is a measure of affective commitment because the two correlate very highly with each other.

Now we know what the Employee Promoter Score measures, the factors influencing it are identified. The Employee Promoter Score was adequately predicted by the HPWPs used in this study. In total, about 69% of the variance in the score was explained, which is very high. Six of the eight independent variables used in this study proved to be significant on a < .05 level and five were on a < .01 level. Work atmosphere was influencing the Employee Promoter Score the most. There has been little research to the concept work atmosphere, which measures collegiality, team spirit and pleasure at the workplace (Tummers, Lankhaar & Groeneveld, 2013). But, when this definition is used it shows much overlap with HPWP organizational culture (Schein, 1990). So, the high influence of work atmosphere is in accordance with findings of research performed by Michlitsch (2000), who showed culture is a strong determinant for loyalty. With a foundation of strong culture that embodies values, egalitarian management will encourage and support a loyal, high-performing workforce. According to O'Reilly, Chatman & Caldwell (1991) organizational culture can also have significant impact on feelings of person-organization fit. People can be attracted to certain organizational cultures, which improves fit (Barley, Meyer & Gash, 1988; O'Reilly, 1989; Smircich, 1983). Thus, the atmosphere in the workplace (do employees in the organization laugh a lot and is there a lot of collegiality) and the extent to which employees are proud to work for their employer are of much significance when asking them the question whether or not they would recommend their employer. Work atmosphere has a lot to do with affective feelings towards the organization in co-workers and it is interesting to see that in both sections this affective state of mind is important when employees are asked the "ultimate question".

Elaborating on work atmosphere, the vision and ambition of an organization proved to be very important in influencing the Employee Promoter Score as well. Dvir, Kass & Shamir (2004) found that vision is an important aspect in influencing affective commitment in organizations, while not influencing calculative commitment. In other words, the effect that vision and ambition has on the Employee Promoter Score, which is very much related with affective commitment, is consistent with earlier findings. This means that if employees have the feeling that their organization wants to be better than other organizations, if it is clear were the organization is headed in the future and if the board or management is inspiring, employees will sooner recommend their employer.

Leadership is also of great importance to employees. Leadership, which also contains elements of vision and ambition but from a leader-perspective, has proved to be of great importance in employee motivation (Northouse, 2012), which the results in this study reflect. When managers are inspiring, decisive, interested and stimulate change, employees tend to recommend the organization more. If employees feel that the work pressure is too high, they will less likely to be recommending their employer to work for. So, an acceptable workload proved to be a significant factor in influencing the Employee Promoter Score. If employees have the time to interact with clients, if there are enough employees for the work that has to be done, they get enough time for the work they have to do and the physical strain of the work their doing is not too high the Employee Promoter Score goes up. This is consistent with findings of Moore, Henderson & Chawla (2004) who found that especially in the health care sector, which has a high level of work pressure, relieving stress is a good way for managers to increase organizational commitment. Teamwork actually had a negative effect on the Employee Promoter Score. When the atmosphere within teams is good and there is good collegiality employees are less likely to recommend their employer. This is likely due to a so-called "Simpson's paradox" or "Reversal paradox" because the correlation of EPS and teamwork is positive in the correlation matrix. This paradox states that it is possible to have two variables that are positively related while at the same time having the variables negatively related within each level of some third variable. So, while the correlation of teamwork with EPS is positive it could still be that within a majority of the organizations, this correlation is negative, which the multivariate analysis indicates (Blyth, 1972; Messink & van de Geer, 1981). For example, this could mean that in organizations that experience difficulties regarding motivating the staff and scoring a higher EPS, employees rate and value teamwork higher, because the organization is not motivating them enough but their team is. This is something that needs further exploration, though. Lastly, autonomy had a minor effect on the recommendation question.

So, when organizations want more ambassadors that would recommend their employer to work for and thereby attracting more people and potential talents they are advised to start with the work atmosphere and culture. Make people proud to work for the organization and make sure there is a good atmosphere in the workplace, throughout the whole organization. If employees laugh more, they are more likely to recommend their employer. Also, make sure there is a lot of team spirit and collegiality, not only in certain teams but as well throughout the whole organization. Employees also like it if their organization has a sense of where it is going and if it communicates this with them. If the board or management is inspiring and wants to be better than other players on the field, employees pick this up and the Employee Promoter Score will rise. Being a transformational leader also significantly helps to raise the Employee Promoter Score, as well as relieving employees of work pressure as much as possible.

Discussion and limitations

To further develop the understanding of the Employee Promoter Score, further research is needed. One case that has to be assessed is whether organizations that have a high Employee Promoter Score also do well regarding performance. Then, we will know if it is worthwhile to put a lot of effort in raising the Employee Promoter Score when focusing on performance indicators. This research already identified the factors that can be altered to raise the Employee Promoter Score and what it means for employers when their employees have high ratings in the Employee Promoter Score, namely more affective commitment. Another thing that has to be evaluated on an organizational level is whether or not the statistical translation of the Employee Promoter Score to an Employee Net Promoter Score, by subtracting the number of detractors from the number of promoters, is a method that proves to have more predicting value than the Employee Promoter Score in this article, when looking at certain performance indicators.

Although the number of respondents for the benchmark data in this survey was very high, there are also some weaknesses in the research in this article. For study 2 the database from the benchmark did not contain scientifically validated scales but a CFA was done in this research and the scales were validated in previous research by Tummers, Lankhaard & Groeneveld (2013). In study 1, the reliability for the calculative commitment scale was low so it is not reliable to make statements about this variable. To account for this a CFA was done in this research, which contained good values of model fit. The generalizability of the results can be a problem for this research, since the collection of data for both studies was only done in the nursing and home care sector in the Netherlands. Implications of this have already been discussed in the methods section. Further research can be conducted in other sectors or countries.

In short, it was found that the EPS, the question whether or not employees of an organization would recommend their workplace, mostly is a measure of affective commitment, but also is akin to person-organization fit and intention to leave. So in organizations that have a higher EPS, employees have a feeling that they affectively belong to an organization, that their values and beliefs are in accordance with the culture and values of the organization and are less likely to leave. To raise the EPS, the most important thing that employers can do is to raise the work atmosphere, because employees who laugh more and show more collegiality towards each other, tend to recommend their employer sooner. Adequate leadership, a strong vision and ambition and relieving workload are all useful tools for raising this score too. Raising the EPS means that employees fit better in the organization, are more affectively committed and would sooner recommend their workplace so that the organization is a more attractive one to work for.

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Appendix 1

In figure 4, the model used for the Confirmatory Factor Analysis conducted for study 1 is shown.

Figure 4 Construct validity model for study 1
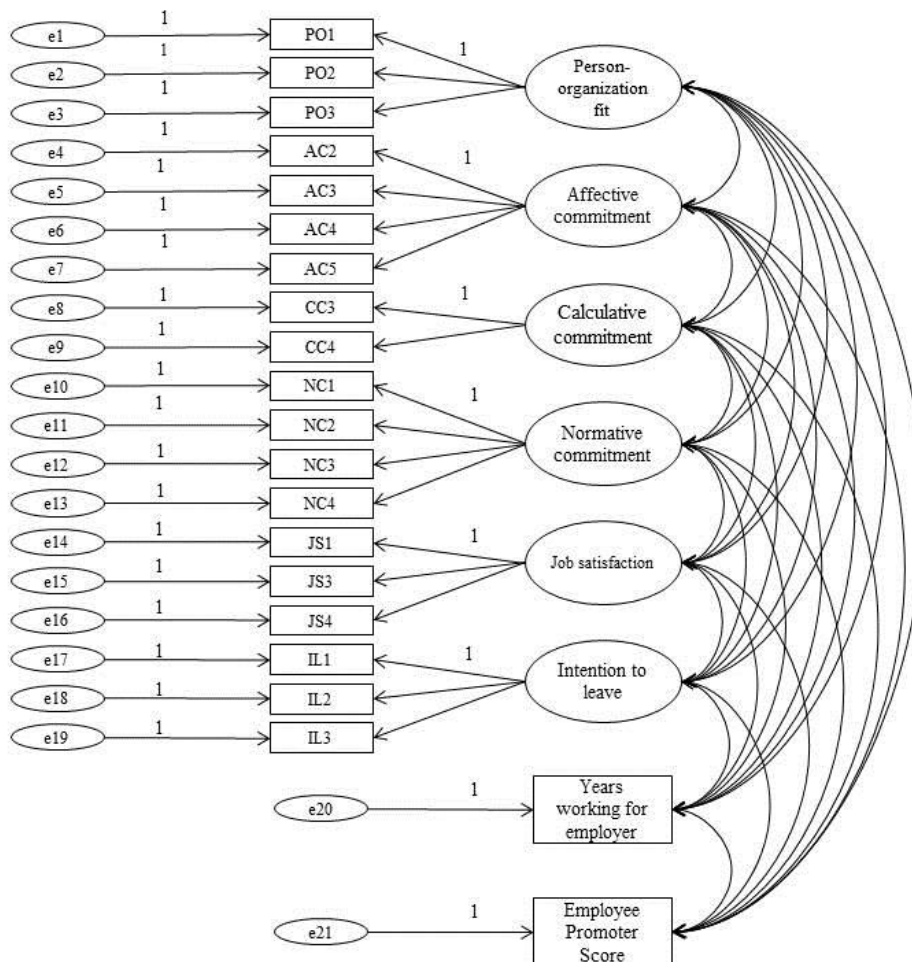
The factor loadings of the different items can be found in table 8. The covariances between the latent variables can be found in table 9.

Table 8 Factor loadings for study 1

Item	Factor loadings					
	F1	F2	F3	F4	F5	F6
Person-Organization fit						
The things that I value in life are very similar to the things that my organization values (PO1)	.77					
My personal values match my organization's values and culture (PO2)	.80					
My organization's values and culture provide a good fit with the things that I value in life (PO3)	.96					
Affective commitment						
I feel a sense of belonging to my organization (AC2)		.81				
I feel emotionally attached to this organization (AC3)		.69				
I feel like part of the family at my organization (AC4)		.84				
This organization has a great deal of personal meaning for me (AC5)		.80				
Calculative commitment						
I feel that I have too few options to consider leaving this organization (CC3)			.57			
If I had not put so much of myself in this organization, I would consider to work for another organization (CC4)			.62			
Normative commitment						
I feel obliged to my employer to keep my current job (NC1)				.74		
Even if it is worthwhile for me, I would not feel it was right to leave my organization (NC2)				.84		
It would not be decent to quit at this time (NC3)				.75		
I would not quit at this time, because I owe people at my workplace something (NC4)				.74		
Job satisfaction						
I find real enjoyment in my job (JS1)					.71	
Most days I am enthusiastic about my job (JS3)					.77	
I feel fairly well satisfied with my job (JS4)					.89	
Intention to leave						
Lately, I intend to quit my job (IL1)						.91
If I could, I would quit my job today (IL2)						.88
At the present time, I am actively searching for a job in a different healthcare organization (IL3)						.67

Table 9 Covariances between latent variables (study 1)

Latent variable	1	2	3	4	5	6	7
1. Person-Organization fit	-						
2. Affective commitment	.325	-					
3. Calculative commitment	- .078	.017	-				
4. Normative commitment	.160	.248	.105	-			
5. Job satisfaction	.126	.212	- .134	.108	-		
6. Intention to leave	- .122	- .248	.271	- .212	- .377	-	
7. Years working for employer	- .096	.045	.108	- .045	- .057	.140	-
8. Employee Promoter Score	.489	.613	- .344	.439	.408	- .644	- .160

Based on high modification indices and residual covariances as well as low factor loadings some items have been deleted to increase model fit. These values can be found in table 10.

Table 10 Deleted items for study 1

Item	Factor loading
I really feel as if this organization's problems are my own (AC1)	.42
It would be very hard for me to leave my organization right now, even if I wanted to (CC1)	.73
Too much in my life vifould be disrupted if I decided I wanted to leave my organization now (CC2)	.68
One of the few serious consequences of leaving this organization would be the scarcity of available alternatives (CC5)	.71
I like my job better than the average person (JS2)	.49
At the present time, I am actively searching for a job in an organization in a different sector than healthcare (IL4)	.64

Appendix 2

In figure 5, the structural equation model used in study 2 is shown. Note that the rights for the scales used in the benchmark data belong to ActiZ and PwC so the items that were used have been given fictitious names. Covariances between all the latent variables were drawn, but these are not shown in the figure for easier viewing purposes.

Figure 5 Structural Equation Model for study 2
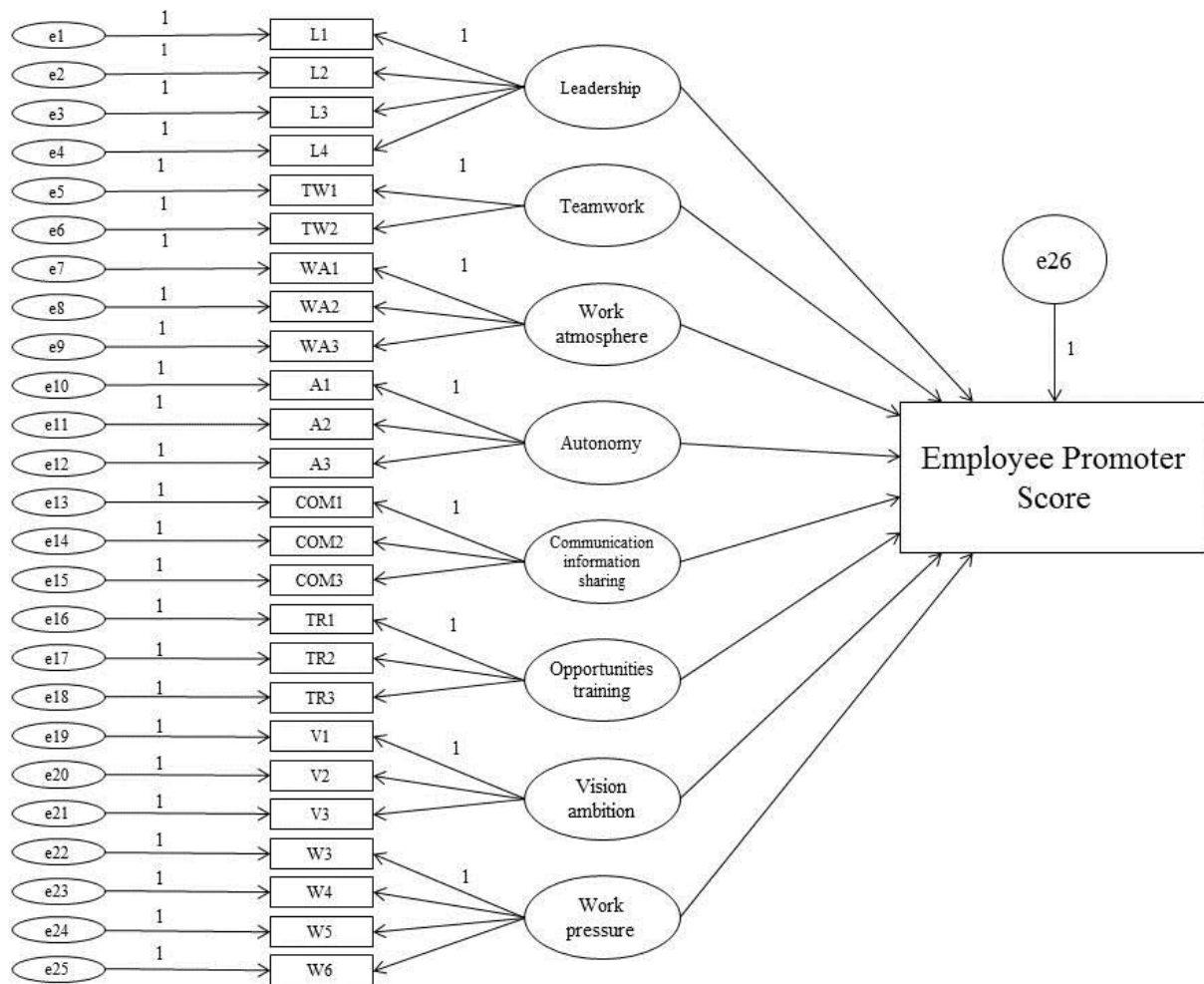
The factor loadings of the different items can be found in table 11. The covariances between the latent variables can be found in table 12.

Table 11 Factor loadings for study 2

Item	Factor loadings							
	F1	F2	F3	F4	F5	F6	F7	F8
Leadership								
L1	.93							
L2	.92							
L3	.90							
L4	.80							
Teamwork								
TW1		.95						
TW2		.93						
Work Atmosphere								
WA1			.70					
WA2			.79					
WA3			.88					
Autonomy								
A1				.82				
A2				.82				
A3				.92				
Communication information sharing								
COM1					.83			
COM2					.77			
COM3					.85			
Opportunities for training								
TR1						.87		
TR2						.86		
TR3						.89		
Vision and ambition								
V1							.69	
V2							.79	
V3							.88	
Work Pressure								
W3								.82
W4								.71
W5								.86
W6								.80

Table 12 Covariances between latent variables (study 2)

Latent variable	1	2	3	4	5	6	7
1. Leadership	-						
2. Teamwork	.476	-					
3. Work atmosphere	.756	.649	-				
4. Autonomy	.783	.493	.752	-			
5.Communication and information sharing	.854	.547	.827	.916	-		
6. Opportunities for training	.785	.518	.864	.775	.831	-	
7. Vision and ambition	.704	.444	.811	.665	.760	.785	-
8. Acceptable work pressure	.672	.444	.712	.720	.745	.690	.667

Based on high modification indices and residual covariances as well as low factor loadings some items have been deleted to increase model fit. These values can be found in table 13.

Table 13 Deleted items for study 2

Item	Factor loading
Leadership 5	.82
Organizational culture 4	.73
Work pressure 1	.68
Work pressure 2	.71