The Effects of High Performance Work Systems and Leader-Member Exchange Quality on Employee Engagement: Evidence from A Brazilian Non-Profit Organization

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Abstract

The field of strategic human resource management (SHRM) is mainly concerned with the development of HRM systems that create value to the organization and its internal customers. In this paper, we evaluate the effects of high performance work systems (HPWS) and leader-member exchange (LMX) quality on employee engagement, and also the relationship between employee engagement and turnover intention. The research involved 189 employees of a nonprofit Brazilian organization. Results from hierarchical multiple regression analyses showed that HPWS and LMX quality have a positive and significant effect on employee engagement. It was also shown that engagement has a negative and significant effect on employees’ turnover intention. Implications of these findings are discussed.

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Keywords: High performance work systems; human resource management; employee engagement; leader-member exchange; turnover intention.

1. Introduction

Given the need to provide consistent results and concerned about the retention of qualified professionals, organizations are pursuing the development of high performance work systems (HPWS), which are thought to increase employee and organizational performance [1]. HPWS are defined as a bundle of human resource management (HRM) policies and practices designed to create a more productive workforce, therefore adding value to the organization and its internal customers. The process through which HRM policies and practices lead to employee and firm performance is often called a “black box”, given the multitude of possible mediating

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factors, including job satisfaction, organizational commitment, and employee engagement. It is also known that leadership may have a strong influence on attitudes and behavior of subordinates. Specifically, the leader-member exchange (LMX) theory posits that the quality of the relationship between the leader and his/her subordinates have an influence on several individual and organizational outcomes, including organizational commitment, job satisfaction, turnover and performance, among several others [2].

In the present study, we evaluate the effect of high performance work systems (HPWS) and leader-member exchange (LMX) quality on employee engagement, and also the relationship between employee engagement and turnover intention. The research was conducted in a large non-profitable Brazilian organization, with operations in four different states of the country.

In recent decades, following the development of the field of strategic human resource management (SHRM), there has been a growing interest, both by theorists and practitioners, in the impact of HRM systems on employees’ attitudes and behaviors. Given the lack of studies around these subjects in the Brazilian context, and especially within nonprofit organizations, we hope to contribute to this literature, highlighting the relationship between HPWS and employee engagement. We also explore the relationships between LMX quality and employee engagement, and between employee engagement and turnover intention, with the purpose to add to both LMX and engagement research.

| Nomenclature                  |
|-------------------------------|
| HMR  | human resource management |
| HPWS | high performance work systems |
| HR   | human resources           |
| KSA  | knowledge, skills and abilities |
| LMX  | leader-member exchange    |
| SHRM | strategic human resource management |

2. Theoretical Background

2.1. HRM Systems

The field of strategic human resource management (SHRM), developed at the crossroads between HRM and strategy fields, is mainly concerned with the development of HRM policies and practices that contribute towards organizational goals, which are typically based on its strategic needs and plans. The development of this field was partially due to the recognized importance of people as a source of sustained competitive advantage, given that a highly productive and engaged workforce can be valuable, rare, unique, and difficult to imitate. Another distinguishing factor is the idea that the entire HRM system, rather than individual practices considered in isolation, is a key driver of individual and organizational performance.

Within this relatively new field of inquiry, there has been studies on high performance work systems (HPWS), which involves a bundle of HRM practices put in place in order to enhance knowledge, skills and abilities (KSA) of employees, promote their motivation and effort, and foster an environment conducive to their contributions [1], generating favorable conditions for the development of resources and capabilities that create value for the organization [3]. These systems – also called high commitment HR systems, high commitment work practices, human capital enhancing HR systems, and high involvement HR systems – are
thought to contribute to employees’ performance which, in turn, would impact the operational and/or financial performance of the organization [4-5]. Although there is consensus in the literature regarding the importance of such systems, the same cannot be said about which policies and practices should be considered in the bundle and how they may influence each other [1]. Figure 1 presents examples of HRM policies and practices from the ability-motivation-opportunity framework considered in the present study.

Figure 1. Dimensions and practices of HPWS

| Dimension               | HRM policies and practices                                      |
|-------------------------|-----------------------------------------------------------------|
| KSA                     | Recruitment, selection, training and development                 |
| Motivation and effort   | Performance management, compensation, job security policy       |
| Opportunities to        | Job design, teams policy, involvement policies                  |
| contribute              |                                                                  |

2.2. LMX Theory

LMX theory, developed within the larger field of leadership research, is concerned with the relationship between the leader and his/her subordinates, as opposed to the characteristics of the leader that dominate the field. The main idea is that the performance of a subordinate and the performance of the leader are dependent on the quality of their relationship. The theory also posits that leaders tend to develop closer relationships with members of the so-called in-group, as opposed to the out-group, with whom the leader has a more distant approach [6]. The LMX theory also considers three important aspects of the relationship with subordinates: mutual respect, mutual trust and sense of obligation.

According to evidence found in the literature, leader-member exchange quality is positively related to favorable employee attitudes and effective work behaviors, such as job satisfaction, organizational commitment, job performance, and organizational citizenship behaviors. In this sense, a positive relationship between LMX quality and employee engagement may also occur, as proposed in the present study.

2.3. Employee Engagement

Numerous definitions of employee engagement can be found in the literature. In common, there is the idea that engagement is a desirable condition that favors the individual and the organization. William Kahn, a pioneer in the study of this construct, describes engaged employees as those who are physically, cognitively and emotionally connected with their work roles [7]. For the purpose of the present study, employee engagement is defined as a positive and rewarding psychological work related state, characterized by vigor, dedication, and absorption. Vigor is associated with high levels of energy, resilience and persistence, while dedication refers to a sense of meaning, enthusiasm, and pride at work. Absorption, in turn, involves a state of total concentration, happiness and immersion in work activities [8].

Research on the antecedents of employee engagement has looked into individual and situational factors. One important situational factor is called job resources, defined as physical, psychological, social, or organizational characteristics of the job that help the employee to achieve work goals and/or contribute to his/her personal development [9]. Considering that the purpose of HPWS is to create favorable work conditions and a productive workplace, it can be considered an important antecedent of employee engagement.

The literature also points to several positive consequences associated with employee engagement, including individual (e.g. better health and positive emotions) and job-related (e.g. superior performance, client
satisfaction) outcomes [9]. Given this evidence, in the present study we test whether employee engagement is associated with lower turnover intention.

3. Research Methodology

3.1. Sample and Procedure

The present quantitative study employed hierarchical multiple regression analysis to evaluate the effects of HPWS and leader-member exchange quality, both according to the perception of employees, on their engagement. It was also tested the impact of employee engagement on turnover intention.

The following hypotheses were tested:
• H1: Employees evaluation of HPWS has a positive effect on employee engagement.
• H2: Leader-member exchange quality has a positive effect on employee engagement.
• H3: Employee engagement has a negative impact on turnover intention.

The research was conducted in a large Brazilian nonprofit organization. Survey data were collected through an electronic questionnaire developed and stored in the SurveyMonkey® platform. In order to assess the understanding of the questionnaire items, there was a pre-test with a small group of employees. After minor adjustments in the questionnaire, invitations to participate in the study, along with a link to the electronic form, were sent to all 669 employees who do not hold any middle or top management position within the organization. Of those, 216 employees accessed the research platform, but since 27 questionnaires were left incomplete and were therefore excluded, the final sample was composed of 189 respondents (28% of total).

As to the demographic background of the respondents, their age ranged from 20 to 65 years-old (42 years-old on average), 62% were men, and 89% had at least a bachelor’s degree. The respondents’ organizational tenure ranged from 1 to 27 years (10 years on average).

3.2. Measures

To measure employees’ perceptions about the quality of HRM practices, they were asked to evaluate 26 items drawn from previous research on HPWS [10-11-12], and taking into account the particularities of the organization under study. A 5-point Likert scale was used (1 = strongly disagree to 5 = strongly agree). Consistent with previous research, we use a single overall index of practices, based on the ability-motivation-opportunity model of high performance work systems discussed earlier. The internal reliability (Cronbach’s alpha) for the scale in this study is .94.

Leader-member exchange quality was evaluated using the LMX-7 scale, consisting of seven items [13]. The Cronbach’s alpha for the scale in this study is .925.

Participants’ engagement was measured through the Utrecht Work Engagement Scale (UWES), developed by Schaufeli and Bakker [14], which takes into account three aspects of engagement at work: vigor, dedication and absorption. Each of the 17 items is rated on a seven point scale, ranging from 0 = never to 6 = always. In this study, the Cronbach’s alpha for the scale is .95.

Turnover intention was measured through a four items scale used by Jensen, Patel, and Messersmith [12]. A 5-point Likert scale was used (1 = strongly disagree to 5 = strongly agree) and the Cronbach’s alpha for the scale in this study is .82.

The control variables included were gender (0 = female, 1 = male), age, and organizational tenure.
4. Data Analysis

Table 1 presents means, standard deviations and Pearson correlations of the variables. As shown in the table, both HPWS and LMX were positively correlated with employee engagement (r = .54, p < .01 and r = .53, p< .01). In addition, employee engagement was negatively correlated with turnover intentions (r = - .59, p < .01).

Table 1. Descriptive statistics and correlations

| Variable           | Average | SD  | 1   | 2   | 3   | 4   | 5   | 6   |
|--------------------|---------|-----|-----|-----|-----|-----|-----|-----|
| 1 HPWS             | 3.6     | .76 | 1   |     |     |     |     |     |
| 2 LMX              | 3.8     | .83 | .69**|     | 1   |     |     |     |
| 3 Engagement       | 4.5     | 1.03| .54**| .53**| 1   |     |     |     |
| 4 Turnover intention| 2.0    | .93 | -.59**| -.49**| -.54**| 1   |     |     |
| 5 Gender           | 0.7     | .48 | -.10| -.09| .01 | .05 | 1   |     |
| 6 Age              | 42.4    | 11.43| -.13| -.09| .02 | -.03| .07 | 1   |
| 7 Organizational tenure | 10.5  | 5.92| -.21**| -.15**| -.06| .15 | .09 | .69**|

Note: * p<0.05 ** P<0.01

The hypotheses were tested through hierarchical multiple regression analyses. First, we evaluated whether employee engagement would be influenced both by the set of high-performance HR practices (H1) and LMX quality (H2). As shown in Table 2, we entered the control variables, HPWS, and then LMX. Model 1, only with the control variables, was not significant. Model 2, which included HPWS, was significant, thus confirming hypothesis 1 (β = .82, p < .001). There was a significant increase in $R^2$ ($\Delta R^2 = .28, p < .001$), suggesting that 28% of the variance of employee engagement is explained by their evaluation of the HR practices adopted in the organization. In Model 3, we added LMX quality and obtained support for hypothesis 2 ($\beta = .37, p < .001$). There was a significant increase in $R^2$ ($\Delta R^2 = .05, p < .001$), suggesting that, above and beyond HRM practices, the quality of the relationship with the immediate superior also contributes towards employee engagement. Overall, the proposed model, including HPWS and LMX, explained 33% of the variance in employee engagement ($p < .001$).

Table 2. Hierarchical Regression Analysis for Engagement

| Variables            | Model 1 | Model 2 | Model 3 |
|----------------------|---------|---------|---------|
|                      | B       | ß       | B       | ß       | B       | ß       | B       | ß       |
| Gender               | .04     | .14     | 1.00    | .15     | 1.11    |
| Age                  | .01     | .01     | 1.22    | .01     | 1.23    |
| Organizational tenure| -.02    | -.02    | -.03    | .00     | -.06    |
| HPWS                 | .74     | 8.50*** | .46     | 3.90*** |
| LMX                  | .37     | 3.58*** |

$R^2$ .01 .29 .33
$\Delta R^2$ .01 .28 .05
$\Delta F$ .47 72.32*** 12.81***
Next, we tested hypothesis 3, that employee engagement would be negatively related to turnover intention. As shown in Table 3, Model 1, with only the control variables, was not significant. However, it should be noted that age and organizational tenure had a significant effect on employees’ turnover intention. The intention to leave the organization was higher for younger workers ($\beta = -0.02, p < 0.05$) and the ones with longer organizational tenure ($\beta = 0.04, p < 0.05$), a result that is not consistent with the literature and will be discussed later. Model 2, which included employee engagement, was significant, thus confirming hypothesis 3 ($\beta = -0.46, p < 0.001$). There was a significant increase in $R^2$ ($\Delta R^2 = 0.26, p < 0.001$), suggesting that 26% of the variance in turnover intention is explained by the engagement levels. Overall, Model 2 explained 30% of the variance in turnover intention ($p < 0.001$).

### Table 3. Hierarchical Regression Analysis for Turnover Intention

| Variables            | Model 1 |        | Model 2 |        |
|----------------------|---------|--------|---------|--------|
|                      | $\beta$ | $t$    | $\beta$ | $T$    |
| Gender               | 0.08    | 0.60   | 0.10    | 0.87   |
| Age                  | -0.02   | -2.42* | -0.01   | -2.11* |
| Organizational tenure| 0.04    | 2.25*  | 0.03    | 2.13*  |
| Employee engagement  | -0.46   | -8.35*** | -0.46  | -8.35*** |
| $R^2$                | 0.04    |        | 0.30    |        |
| $\Delta R^2$         | 0.04    |        | 0.26    |        |
| $\Delta F$           | 2.33    |        | 69.70***|        |

Note: * $p < 0.05$   ** $p < 0.01$   *** $p < 0.001$.

### 5. Discussion and conclusion

The main purpose of this study was to contribute to the HRM, LMX and engagement literatures by testing the effect of high performance work systems (HPWS) and leader-member exchange (LMX) quality on employee engagement. The results of this study, conducted in a large Brazilian non-profit organization, revealed that HPWS and LMX quality were positively related to employee engagement. In other words, the evidence shows that HRM practices designed to enhance employees’ KSA, motivation and effort, and opportunities to contribute have a positive and significant effect on employee engagement. This result is consistent with previous findings and provides further support for the importance of the HR function to organizational performance, given that engaged employees are more likely to perform better and to help others to do so.

Furthermore, we found evidence that, above and beyond the HRM practices put in place by the HR function, leadership also has a significant contribution to employee engagement. More specifically, we were able to show that employees who have higher quality relationships with their leaders tend to be more engaged. This result, also in accordance with previous research, suggests that, to be effective, organizations should strive to select and develop leaders that are able to cultivate positive relationships with their team, based on trust, respect, and sense of obligation.

In this research, we also found a negative and significant relationship between employee engagement and turnover intention. This result points to the importance of creating and sustaining an engaged workforce,
considering the substantial costs associated with turnover, in terms of operations disruptions, spending on recruitment, selection and training, and human capital losses, especially the loss of essential tacit and explicit knowledge, built over time and through socially complex mechanisms [15-16].

Lastly, it is important to note that the intention to leave the organization was significantly higher for younger workers and workers with longer organizational tenure. The idea that younger workers are more prone to leave the organization they work for is not surprising, considering that they are in the beginning of their careers and may be looking for different experiences. Younger workers also tend to have less personal responsibilities, which may make it easier for them to change jobs. On the other hand, the fact that, in this sample, workers with longer organizational tenure are more likely to leave is not consistent with previous findings, given that, as time passes, workers tend to get used to the job, the culture and their colleagues, making them less inclined to leave the organization. In the organization under study, given its stable environment and slow growth – a situation commonly faced by non-profit organizations –, career mobility and progression for more experienced workers tend to be limited and may explain this result. Since these workers cannot find opportunities for professional growth within the organization, they may consider looking for them elsewhere.

As for the practical implications of the results, it should be highlighted the importance of HPWS and LMX quality, given that both seem to contribute to employee engagement and that engaged employees tend to perform better and to be less likely to leave the organization. As with external customers, keeping and engaging the best internal customers are crucial to an organization’s success, especially under the so-called “war for talent” [17]. Thus, we hope to draw the attention of HR professionals to the importance of investments that improve HRM practices in line with the ability-motivation-opportunity framework and of developing leaders genuinely concerned with the quality of relationships they establish with their subordinates.

This study has some limitations worth mentioning. First, we rely on cross-sectional data and, therefore, it is not possible to make causal claims. In addition, our data was based on self-reports collected through the same method and source, which means that common method effects could be affecting our estimates. These problems might be avoided in future studies, with different research approaches.

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