The role of work motivation as a mediator on the influence of education-training and leadership style on employee performance

Luisinha Fonseca Da Costa Guterresaa*, Armanub and Rofiatyb

aStudent, Program Doctor of Management Science, Brawijaya of University, Indonesia
bFaculty Of Economics and Business, Brawijaya of University, Indonesia

ABSTRACT

This paper offers an empirical study of the role of work motivation in mediating the effect of education-training and leadership style on the performance of Ministry of Education employees in Timor-Leste. Data were obtained from 86 employees as samples through questionnaires. We applied the SEM-PLS to analyze the proposed relationship model. Empirical results show that work motivation mediated the influence of leadership style on employee performance, but not for education-training. The results can provide valuable insight for public service management.

Keywords: Education-training, Leadership style, Motivation, Employee performance, Ministry of Education, Timor-Leste

1. Introduction

Timor-Leste, which had been part of the State of Indonesia since 1976 under the name Timor-Timor, officially became an independent and sovereign state in 2002. This country began its independence among the poorest countries in the world and the quality of public services has not undergone significant changes. From various studies of public services in Timor-Leste (Blunt, 2009; Marriott, 2012; Parker, 2009; Shah, 2011; Wilson, 2012) apparently there was not reforms carried out in various sectors so that the country's economic growth gets better (Shah, 2012; World Bank, 2015). Since its independence, population growth in Timor-Leste along with relatively moderate GDP growth have led to decrease in per capita income and increase in poverty rates (Lundahl & Sjöholm, 2009). Facing this situation, the focus of attention is on the quality of human resources.

With the end of the UN mission in post-conflict Timor-Leste in December 2012, there have been some opportunities for state development in practice. Progress has varied, from building state bureaucracies and government machinery, democracy and participation, building institutions including the rule of law, and controlling corruption and transparency (Goldfinch & Derouen Jr, 2014). In this era of globalization, modern business primarily are driven by intellectual capital and human capital helps organizations build and maintain competitive advantage (MacDougall & Hurst, 2005). Munawaroh, Riantoputra, and Marpaung (2013) identified the factors that influence employee performance, including individual performance, quantity and quality of work, responsibilities and needs for achievement. Education-Training is one measure of employee development. The right type of education is very important for skill development and its effectiveness depends on training pedagogy (Dubey & Gunasekaran, 2015). For education-training programs to be successful and achieve their goals, (1) training process must be designed in such a way to give confidence to participants so that they can apply in the workplace; (2) it is necessary to

* Corresponding author.
E-mail address: lya_fon99@yahoo.com (L. F. D. Guterresa)
provide practical examples of the knowledge and skills to be applied in conditions that simulate the actual work environment of employees; and (3) there is a need to present the framework of behavior that employees must follow so that training content can be implemented efficiently in their work (Diamantidis & Chatzoglou, 2014). In community service-oriented organizations, such as the Ministry of Education Office, organizational success is highly dependent on the role of the leader, because leaders influence the emotions, attitudes and behavior of employees (Avolio, Gardner, Walumba, Luthans, & May, 2004) and how employees interact with service users (Wallace, de Chernatony, & Buil, 2013).

2. Literature review

2.1 Education-Training

Capabilities, skills, and competencies are very important for employees to work effectively and efficiently. To realize this, it is necessary to empower human resources as planners and implementers in organizations, one of which is to provide education-training to employees. The education-training program for employees is expected to provide motivation for employees to improve their performance skills so that they can further improve their work performance (Hidayat & Budianta, 2018). In a different context, previous research has shown that education-training is able to change the way a person views his work. For example, education-training motivates entrepreneurial performance (Bhardwaj, 2014; Cheraghi & Schott, 2015). Therefore, the first hypothesis is proposed:

H₁: Education-training is positively related to employee motivation.

Employee ability is an integral part of the entire human resource system. These abilities include reading, writing, mathematics, computer skills and software, problem solving, critical thinking, the ability to participate in meetings, and report writing (Ferguson & Reio, 2012). Lack of employee skills can affect productivity, accidents, errors, and increased costs of rework (Clinton, 1999). There is an opinion that training is important not only because it is needed to build and maintain an effective workforce, but also because it encourages corporate well-being and improves organizational performance (Saks & Burke Smalley, 2014; Salas & Cannon-Bowers, 2001). However, participants must first apply and transfer what they learn in training at work. Previous studies confirmed the existence of a positive relationship between education-training with individual or group performance, both for private employees (Aliman, 2017; Sendawula, Nakyew Kimuli, Bananuka, & Najjemba Muganga, 2018) and civil servants. Studies on education-training in the public sector have been carried out a lot, especially since the education-training program is one that is intended to empower civil servants. Therefore, the second hypothesis is proposed:

H₂: Education-training affects employee performance through motivation.

2.2 Leadership Style

Work motivation has been alluded to in several studies that relate it to transformational leadership (misalnya, Kahai, Sosik, & Avolio, 2003; Manik, 2016; Mathieu & Babiak, 2015; Zareen, Razzaq, & Mujtaba, 2015). Koh and Hia (1997) found hypothesis support for employee motivation, commitment and their trust in leaders in the Singapore banking industry. Schaubroeck, Lam, and Peng (2011) show that the influence of leader behavior on team performance is fully mediated by the beliefs and psychological state of the team. Özaralli (2003) found that transformational leadership contributes to the prediction of subordinate empowerment and that the more team members experience team empowerment, the more effective the team will be. Burns (1978), the originator of transformational leadership theory, proposes that transformational leaders are compared to transactional leaders, motivating their followers in such a way that their main motive is to fulfill self-actualization needs rather than other needs that are lower in Maslow's hierarchy of needs. Transformational leaders expand their “portfolio of needs” in Maslow's hierarchy of needs theories. Bass (1985) argues that the followers' extra effort shows how much leaders motivate them to act outside contractual expectations. Thus, the emphasis on satisfying self-actualization needs reflects the types of needs that underlie the motivation of followers, and extra effort results from higher levels of motivation (Dvir, Eden, Avolio, & Shamir, 2002). Therefore, the following third hypothesis is proposed:

H₃: Leadership style affects employee motivation.

The success of an organization is determined by many things, including leadership styles that take place within the organization. The leader is said to be successful if he is able to become the creator or driver of his subordinates by creating a work atmosphere that can spur the growth and development of the performance of his subordinates. Such leaders have the ability to have a positive effect on their subordinates to do appropriate work directed in order to achieve the stated goals. Leadership behavior influences subordinates' performance, corporate and supported in the findings of previous research (Landry & Vandenbergh, 2012). The meta-analysis of Judge and Piccolo (2004) reports that leadership styles are positively correlated with group and organizational performance. Transformational leadership theory explains that leaders as agents of change are able to produce performance beyond expectations by assigning challenging tasks to direct and motivate themselves and others to achieve higher levels of performance (Bass, Avolio, Jung, & Berson, 2003; Masi & Cooke, 2000). Team collectivism shows a better positive effect of transformational leadership on team potential (Braun, Peus, Weisweiler, & Frey, 2013; Schaubroeck, Lam,
Wang et al. (2011) have also confirmed the positive influence of transformational leadership on team performance and for each level of the organization. Transformational leaders also motivate and inspire followers to achieve performance beyond expectations by changing attitudes, beliefs, and values of their followers (Abdullah, 2018; Rafferty & Griffin, 2004). The direct influence of transformational leadership on subordinates' performance has also been confirmed in Krisnanda and Surya (2019). While in different settings, a number of researchers show an indirect relationship between leadership style and subordinate performance, which is mediated by organizational culture (Sinaga, Asmawi, Madhakomala, & Suratman, 2018), work environment (Imran, Fatima, Zaheer, Yousaf, & Batool, 2012), job-fit (Chi & Pan, 2012), conflict (Kammerhoff, Lauenstein, & Schütz, 2019), training (Nasser & Aini, 2016), leader-subordinate exchange (Wang, Law, Hackett, Wang, & Chen, 2005), employee involvement (Buil, Martínez, & Matute, 2019; Hee, Ibrahim, Kowang, & Fei, 2018; Schmitt, Den Hartog, & Belschak, 2016), self-efficacy (Walumbwa & Hartnell, 2011), behavior of organizational citizenship (Boerner, Eisenbeiss, & Grieser, 2007), knowledge sharing (Masa'deh, Obeidat, & Tarhini, 2016), organizational commitment (Chu & Lai, 2011), trust (Braun et al., 2013; Schaubroeck et al., 2011), work motivation (Manik, 2016; Mavhungu & Bussin, 2017), and job satisfaction (Biswas & Varma, 2011; Hasmin, 2017). If a leader is able to combine appropriate and effective leadership styles within the organization, this will give employees a sense of empowerment and as a result, employees can carry out their duties more efficiently and effectively so that their creative and innovative abilities spur, which ultimately lead on improving performance. The importance of motivating employee work from the leadership style applied is to improve employee performance. This assumption is supported by the results of Manik (2016); Mavhungu and Bussin (2017). Therefore, the fourth hypothesis is proposed:

\[ H_4: \text{Leadership style affects employee performance through motivation.} \]

### 2.3 Employee Motivation

Work motivation is an inner strength that encourages employees to achieve personal and organizational goals (Lindner, 1998). Previous findings have proven that individuals who are motivated in their work will have a positive impact on improving their performance (Arifin, 2015; Manik, 2016). The importance of motivating civil servants in public organizations has been discussed in previous studies (Caillier, 2014; Mann, 2006; Paarlberg & Lavigna, 2010; Petrovsky & Ritz, 2014). Motivation of public services refers to the motives of employees to do good for others and shape people's welfare (Perry, Hondeghem, & Wise, 2010, p. 3). This also means as trust, values and attitudes that go beyond self-interest and the interests of the organization. Therefore, the fifth hypothesis is proposed:

\[ H_5: \text{Employee motivation affects employee performance.} \]

![Conceptual Framework](image-url)

**Fig. 1. Conceptual Framework**

### 3. Methods

This research is a type of explanatory research, which intends to explain the position of the variables studied and the relationships between variables. The purpose of this study is to explain the role of work motivation in mediating the effect of education-research and leadership style on employee performance. The research was carried out at the Office of the Ministry of Education of the Democratic Republic of Timor-Leste (República Democrática de Timor-Leste) with Civil Servants (Funcionário Público) in five directorates as research respondents. The choice of location is supported by several reasons. First, the education sector has a very important role in preparing quality human resources in developing national development in Timor Leste. Second, the scarcity of current research that investigates the behavior of public organizations in Timor Leste, especially in the Ministry of Education sector. Third, the results of this study are expected to provide information and practical
implications for the phenomenon of employee performance at the Ministry of Education Office, Timor-Leste. The population in this study included all employees totaling 436 employees. The sampling technique uses no probability sampling with Purposive-judgment sampling type. This study uses an analytical tool in the form of Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach. SEM-PLS tests the causal relationship between the research variables which have not had much theoretical support or the research is explanatory. The steps in the PLS analysis consist of an evaluation of the structural model measurement and evaluation model, based on Hair et al. (2014).

4. Results and discussion

4.1 Measurement Evaluation

In estimating and testing the proposed research model, we followed the two-step procedure suggested by Anderson and Gerbing (1988). Structural equation modeling or SEM with SmartPLS is used to analyze survey data. Table 1 shows that the Cronbach’s alpha and composite reliability coefficients of the construct exceed the rule of thumb rules which are generally known to be 0.70 (Fornell & Larker, 1981; O’Leary-Kelly & Vokurka, 1998). Thus, we conclude that our theoretical constructs show adequate reliability. We build a measurement model through PLS algorithm procedures to assess convergent validity of each measurement scale (O’Leary-Kelly & Vokurka, 1998). Table 1 shows that all indicators in each construct have a significant factor loading (p <0.01) greater than 0.50, which indicates convergent validity of theoretical constructs (Anderson & Gerbing, 1988).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indicators</th>
<th>Loadings</th>
<th>Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education-Training</td>
<td>Formal</td>
<td>0.902</td>
<td>0.774</td>
<td>0.868</td>
<td>0.687</td>
</tr>
<tr>
<td></td>
<td>Non-Formal</td>
<td>0.826</td>
<td>0.66</td>
<td>0.854</td>
<td>0.745</td>
</tr>
<tr>
<td>Leadership Style</td>
<td>Transformational</td>
<td>0.977</td>
<td>0.832</td>
<td>0.89</td>
<td>0.671</td>
</tr>
<tr>
<td></td>
<td>Transactional</td>
<td>0.618</td>
<td>0.596</td>
<td>0.818</td>
<td>0.696</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>Esteem Needs</td>
<td>0.771</td>
<td>0.475</td>
<td>0.792</td>
<td>0.655</td>
</tr>
<tr>
<td></td>
<td>Self-Actualization</td>
<td>0.937</td>
<td>0.793</td>
<td>0.866</td>
<td>0.617</td>
</tr>
<tr>
<td></td>
<td>Safety Needs</td>
<td>0.727</td>
<td>0.687</td>
<td>0.86</td>
<td>0.756</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>Quality</td>
<td>0.78</td>
<td>0.671</td>
<td>0.818</td>
<td>0.601</td>
</tr>
<tr>
<td></td>
<td>Quantity</td>
<td>0.833</td>
<td>0.688</td>
<td>0.829</td>
<td>0.619</td>
</tr>
<tr>
<td></td>
<td>Timeliness</td>
<td>0.839</td>
<td>0.707</td>
<td>0.836</td>
<td>0.631</td>
</tr>
<tr>
<td></td>
<td>Effectivity</td>
<td>0.794</td>
<td>0.735</td>
<td>0.882</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Independence</td>
<td>897</td>
<td>0.796</td>
<td>0.868</td>
<td>0.623</td>
</tr>
</tbody>
</table>

4.2. Structural evaluation

Based on Table 2, the direct effect of education-training on work motivation results in a coefficient value of 0.038, and the t-statistical value (0.317) is smaller than the specified t-table value (1.96). That is, there is no significant direct effect of education-training on work motivation. Thus, the first hypothesis (H1) is rejected. The direct effect of education-training on employee performance results in a coefficient value of 0.313, and a t-statistic value (3.784) which is greater than the specified t-table value (1.96). That is, there is a significant direct effect of education-training on employee performance. However, the indirect effect of education-training on employee performance through work motivation produces a coefficient of 0.010, and a t-statistic value (0.316) which is smaller than the specified t-table value (1.96). That is, there is no significant effect of education-training on employee performance through work motivation. Thus, the second hypothesis (H2) is rejected. The direct influence of leadership style on work motivation results in a coefficient value of 0.322, and a t-statistic value (5.041) that is greater than the specified t-table value (1.96). That is, there is a significant direct effect of leadership style on work motivation. Thus, the third hypothesis (H3) is accepted. The direct influence of leadership style on employee performance produces a coefficient value of 0.300, and a t-statistic value (2.736) which is greater than the specified t-table value (1.96). That is, there is a significant direct effect of leadership style on employee performance.

Likewise, the indirect influence of leadership style on employee performance through work motivation results in a coefficient of 0.087, and a t-statistic value (2.978) which is greater than the specified t-table value (1.96). That is, there is a significant effect of leadership style on employee performance through work motivation. Thus, the fourth hypothesis (H4) is accepted.

The direct effect of work motivation on employee performance produces a coefficient value of 0.269, and a t-statistic value (3.691) which is greater than the specified t-table value (1.96). That is, there is a significant direct effect of work motivation on employee performance. Thus, the fifth hypothesis (H5) is accepted.
Table 2

<table>
<thead>
<tr>
<th>Exogen Variable</th>
<th>Moderator</th>
<th>Endogen Variable</th>
<th>Direct Effect (t-value)</th>
<th>Indirect Effect (t-value)</th>
<th>VAF</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education-Training</td>
<td>-</td>
<td>Work motivation</td>
<td>0.038 (0.317)</td>
<td>-</td>
<td></td>
<td>H1 rejected</td>
</tr>
<tr>
<td>Education-Training</td>
<td>Work motivation</td>
<td>Employee Performance</td>
<td>0.313 (3.784)</td>
<td>0.010 (0.316)</td>
<td>0.031</td>
<td>H2 rejected</td>
</tr>
<tr>
<td>Leadership Style</td>
<td>-</td>
<td>Employee Performance</td>
<td>0.322 (5.041)</td>
<td>-</td>
<td></td>
<td>H3 accepted</td>
</tr>
<tr>
<td>Leadership Style</td>
<td>Work Motivation</td>
<td>Employee Performance</td>
<td>0.300 (2.736)</td>
<td>0.087 (2.978)</td>
<td>0.224</td>
<td>H4 accepted</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>-</td>
<td>Employee Performance</td>
<td>0.269 (3.691)</td>
<td>-</td>
<td></td>
<td>H5 accepted</td>
</tr>
</tbody>
</table>

5. Conclusion

The results of the study have provided a general conclusion that work motivation mediates the influence of leadership style on employee performance, but does not mediate the effect of education-training on employee performance at the Ministry of Education Office of Timor-Leste. There are five specific conclusions from the results of this study. First, education-training has no effect on work motivation, which indicates that although there is an increase in education-training but it does not directly increase employee motivation. Second, education-training does not affect employee performance through work motivation, which indicates that work motivation does not mediate the effect of education-training on employee performance. Third, leadership style influences work motivation, which shows that when the leadership style properly is applied it will directly increase employee motivation. Fourth, leadership style influences employee performance through work motivation which shows that work motivation mediates the effect of leadership style applied to employee performance. Fifth, work motivation has an effect on employee performance, which shows that better work motivation will directly improve employee performance.

The results of this study have indicated that the performance of employees at the Ministry of Education Office of Timor-Leste was directly influenced by education-training, leadership style and work motivation. An effective and efficient leadership style can motivate employees so that employees can work better which can ultimately improve their performance. Even though the employee is not motivated by the education-training program provided by the organization, the education-training of employees remains an important factor that determines the level of employee performance. So, organizations do not provide education-training programs to motivate employees to improve their performance, but the organization helps employees improve the intelligence and skills of employees in their jobs.
References


© 2020 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)).