

The Effects of Transformational Leadership on Employee Loyalty and Organizational Commitment in Taiwanese Home Care Workers: Using Work Engagement as Mediator

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Abstract

To investigate the relationship among transformational leadership, work engagement on employee loyalty and organizational commitment, this cross-sectional study analyzed survey data from 442 home care workers in seven home care services in Taiwan. Structural Equation Modeling (SEM) was used to examine associations among study variables and bootstrapping was employed to test the mediated effect. The results were found that work engagement would be a crucial mediating role in linking transformational leadership to employee loyalty, and organizational commitment. This study provides key insights for home care industries and policy makers to improve the lack of workforce and high turnover issues.

Keywords: Transformational leadership, work engagement, employee loyalty, organizational commitment, home care workers

1. Introduction

Population aging is a global phenomenon. According to the United Nations World Elderly Report, the number of people over 65 years old in the world in 2019 was 703 million. It is expected that the number of elderly people will double by 2050, reaching 1.5 billion people (United, 2019). Not only the rapidly increasing numbers of elder people, but also young and middle-aged groups are facing later marriage, fewer children, and increasing female employment rates would lead to a shortage of family caregivers and rise in dependency ratio. In light of an aging population, the government of Taiwan faced a challenge to develop a long-term health care system with sustainable management strategies for the elderly (Jacobzone S. et al., 1999; Lin et al., 2019).

Turnover intention may lead to the loss of talents, reduced employee loyalty and efficiency, and higher labor costs. Leaders' behavior is an important factor in determining employee loyalty. To retain talents and improve employee loyalty is an important issue for every leader (Rai et al., 2018; Wang et al., 2015). In order to keep competent and loyal employees in the organization, leaders must have the ability to inspire and motivate employees toward the organizational goals (Rehmanv et al., 2012). Traditional leadership modes and management strategies are hardly suited to the contemporary working environment (Hayati et al., 2004). In this regard, researchers are seeking appropriate management models to increase employees' commitment and enthusiasm for the organization (Hayati., 2004). Nowadays, leaders can impose

positive attitudes, such as charisma, to influence employees' willingness to develop for organizational goals. (Anjam & Yawer, 2016). This style is known as "Transformational Leadership", which encourages employees to strive for the organizational goals, increase of productivity, better service quality, and solving communication problems (Frandsen., 2014; Hayati et al., 2014). Employee engagement will affect the morale, commitment, loyalty, absenteeism and productivity of the organization (Cohen, 1991). Previous study indicates that work engagement has a positive and significant impact on organizational commitment, employee loyalty, satisfaction, and retention (Geldenhuis et al., 2014). Leaders should formulate measures to improve work engagement, such as avoiding passive-avoidant leadership and providing social support to employees (Lin et al., 2020).

Transformational leadership is an important style in the workplace, but few studies have explored the impact of transformational leadership, work engagement on employee loyalty and organizational commitment. In the past, the researchers have focused on turnover intention of home care workers. In addition, in the Chinese society, commitment is regarded as a synonym for loyalty (Chen et al., 2002). Previous study believed that these two variables are different (Dhir et al., 2020). On the other hand, there were many studies that confuse the concepts of loyalty and organizational commitment (Anjam & Ali., 2016; Dhir et al., 2020; Turkyilmaz et al., 2011; Wiklund & Jansson, 2019). Therefore, we will discuss these two constructs in this study.

This study contributes to the home care industries literature. In addition to supporting previous studies that have shown that transformational leadership is imperative antecedents of work engagement, employee loyalty, and organizational commitment, work engagement is also important in regard to predicting employee loyalty and organizational commitment in home care services, this study shows how work engagement mediates the effect of transformational leadership on employee loyalty and organizational commitment.

On the basis of the research motivation, the objectives of this study are described as follows. First, to explore the impact of the transformational leadership to the work engagement and employee loyalty (Model 1), second, to examine the impact of the transformational leadership to the work engagement and organizational commitment (Model 2). Structural Equation Modeling (SEM) was used to examine associations among study variables and bootstrapping was employed to test the mediated effect.

2. Literature Review

Transformational leadership change employees' value, need, desires, and make employees to beyond their expected performance (Bass & Avolio, 1994). The Bass et al. (2003) divides transformational leadership into four different behaviors: idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. *Idealized influence* refers to the establish image for employees to admire, trust, respect, identify. *Inspirational motivation* refers to express high expectations to employees and encourage employees to achieve organizational goals. *Intellectual stimulation* refers to encourage employees to think out of the box and inspire employees to solve problems by using new methods. *Individualized consideration* refers to the individual care according to the different needs or circumstances of each employee.

Work engagement is defined as a 'positive, fulfilling, work-related state of mind', and is characterized by vigor, dedication, and absorption. *Vigor* refers to high levels of energy, willingness to devote effort in their work, *dedication* is related to involvement and being enthusiastic about their work. *Absorption* indicates being fully concentration and being engaged on work and feeling time flies when working (Schaufeli et al., 2002).

Some studies have found that loyalty and organizational commitment are highly correlated, but others believed that the two variables from different perspectives. However, in the past, many studies cited the literature on organizational commitment to define employee loyalty (Anjam & Ali., 2016; Dhir et al., 2020; Turkyilmaz et al., 2011). Loyalty is defined as an attachment to the workplace, enthusiasm for the organization and willingness to continue to work in the organization (Anjam & Yawer Ali, 2016). Although employee

loyalty and organizational commitment are used interchangeably, these two variables are still slightly different. Loyalty is a kind of faithfulness and trueness, reflecting the loyalty or emotion to someone or a group. On the contrary, organizational commitment is multi-dimensional, involving employees' loyalty to the organization (Dhir et al., 2020). Sheldon (1971) defined the organizational commitment as an individual's attitude or direction towards an organization, an individual's effort, an identification with the organization's values and goals, and willingness to stay in the organization. Mowday, Porter and Steers (1982) believed that it will be performed in three levels through psychology and behavior: (1) believe in the organization's philosophy and identify with the organization's goals; (2) employees are willing to make more efforts for the organization to achieve the goals; (3) employees are willing to stay in the organization and work in the service of the organization.

The transformational leadership of nursing managers have a significantly and positively impact on work engagement (Garcia-Sierra & Fernandez-Castro, 2018; Hayati et al., 2014; Manning, 2016). In addition, studies have shown that the transformational leadership has a significant and positive impact on the culture of client's safety and the work engagement of the home care workers (Ree & Wiig, 2020).

Work engagement can increase productivity and profit, and it significantly affects employees' willingness to stay and loyalty (Mani, 2011). A high degree of work engagement can build employee loyalty to the organization by improving the work engagement (Biswas. & Bhatnagar., 2013; Pološki Vokić & Hernaus., 2015). Past studies have found that there have significant correlation between work engagement and organizational commitment, employee loyalty, satisfaction, and willingness to stay (Geldenhuis et al., 2014). If an organization wants to be successful, it must have engage employees, because engage employees are more loyal and are more likely to stay in the organization (Al-Omar et al., 2019).

Past studies have shown that work engagement and organizational commitment are significantly correlated (Agyemang & Ofei, 2013; Bakker et al., 2008; Geldenhuis et al., 2014; Imam & Shafique., 2014; Simpson, 2009; Lin et al., 2020). Studies in Finland have found that work engagement of health care workers were significantly impact on organizational commitment (Kanste, 2011).

Published studies have found that leaders participation in transformational leadership training courses can effectively increase employee loyalty (Al Qudah et al., 2018). The study strongly believe that transactional leadership is no longer effective, and suggests exploring transformational leadership to increase employee's productivity (Masi & Cooke, 2000). In addition, past studies have shown

that transformational leadership has a significant positive correlation with employee loyalty (Anjam & Ali., 2016; Gashti et al., 2014; Hajizadeh-Gashti & Torbehbar, 2014).

Past studies have found that organizational commitment will bring benefits to employees and organization (Randall., 1987). Past studies have shown that the transformational leadership of bank management is a potential factor influencing the organizational commitment (Walumbwa & Lawler, 2003). Bono and Judge (2003) showed that transformational leadership have significant impact on organizational commitment.

Based on the literature review, it is believing that work engagement will be mediation of the relation between transformational leadership on employee loyalty and organizational commitment.

H1(Model1): Transformational leadership would significantly and positively affect employee loyalty through work engagement.

H2(Model2): Transformational leadership would significantly and positively affect organizational commitment through work engagement.

3. Methodology

This study divided two models to analyze the relationship between transformational leadership, work engagement, employee loyalty and organizational commitment. The research framework was established based on the previous literature review and assumptions. Data analyses were conducted using the SAS 9.4 and AMOS 20.0 software, to achieve the purpose and to test the hypotheses. The test was conducted in two steps. The first step involved running a measurement model test, which ensured the convergent validity and discriminant validity. The second involved testing the hypothesized.

A questionnaire survey was used to collect data from the seven home care services in Taiwan. A total of 442 questionnaires were collected from the participants. After 40 invalid questionnaires were discarded, 402 questionnaires were analyzed, the response rate was 91%. To insure flexibility and high response rate in the survey, we conducted the survey in person during home care services monthly meeting.

All measures were obtained from past studies and modified to fit the home care service context. As a measure of transformational leadership, we adopted 4 items, which was originally developed by Lee (2012). Employee loyalty was adopted 5 items by Yee et al. (2010). Organizational commitment was measured using the Organizational Commitment Questionnaire (QCQ) by Mowday et al. (1979). Above all were assessed items on five-point Likert scales (0=strongly disagree; 5=strongly agree). Work engagement was measured using the Utrecht Work Engagement Scale short version by Schaufeli et al. (2006), the core dimensions are vigor, dedication and absorption and this scale is composed 9 items that use 5-point Likert Scale (0=never; 5=always).

4. Results

4.1 Demographic Characteristics

Most of the respondents were female (87.81% of the total sample), 26.87% were aged over 62 years. Approximately 48.36% held a senior high school diploma and 56.72% were married. The work experience of home care workers under three years were 29.60%, followed by above ten years were 27.36%. The job tenure in the current institution were between two to seven years (28.86%).

4.2 Testing of Reliability and Validity of Measurement Model

This study applies the two-stage approach suggested by Anderson and Gerbing (Anderson & Gerbing, 1992). The first step includes testing the measurement model using confirmatory factor analysis (CFA), and the second step involves testing structural model to examining the hypotheses. The study examined convergent and discriminant validity by conducting first-order CFA. Table 1 show the data that described high convergent validity, including composite validity (CR, exceeded the accepted limit of 0.6) and average variance extracted (AVE, exceeded the accepted limit of 0.5). To test discriminant validity the square root of the variance extracted scores for each construct exceed the coefficient of correlation of constructs with other constructs. In this study both of the models met the discriminant validity criteria (Table 2).

Table 1: Reliability and Convergent Validity

Constructs	Model	CR	AVE	Cronbach's Alpha
Transformational Leadership(TFL)	M1	0.873	0.633	0.85
	M2	0.873	0.633	0.85
Work Engagement(WE)	M1	0.903	0.757	0.95
	M2	0.906	0.763	0.95
Employee loyalty(ELOY)	M1	0.847	0.586	0.75
Organizational commitment(OC)	M2	0.784	0.548	0.75

Table 2: Analysis of Discriminant Validity

Latent Variables	(1)	(2)	(3)	(4)
TFL(1)	0.796/0.796	-	-	-
WE (2)	0.441/0.440	0.870/0.873	-	-
ELOY(3)	0.609	0.408	0.766	-
OC (4)	0.703	0.515	-	0.740

Note: model1/model2, diagonal elements are the square roots of the average variance extracted.

The measurement model demonstrated an acceptable fit: $\chi^2 /df=2.936$, comparative fit index (CFI)=0.969, goodness of fit index (GFI)=0.948, adjusted goodness of fit index (AGFI)=0.916, root mean square error of approximation (RMSEA)=0.069 in model1; $\chi^2 /df=2.684$ CFI=0.976 GFI=0.957 AGFI=0.926

RMSEA=0.065 in model2 (Table 3). There was no remarkable difference about value of goodness of fit among model1 and model2. In order to a better value of model fit, we followed the modification indices, revising the structure of the new model and searching for an optimal adjustment is necessary.

Table 3: Model Fit

Indices	χ^2 /df^*	CFI	GFI	AGFI	RMSEA
Initial model(M1)	3.930	0.952	0.924	0.884	0.086
Modification(M1)	2.936	0.969	0.948	0.916	0.069
Initial model(M2)	3.343	0.958	0.934	0.899	0.076
Modification(M2)	2.684	0.976	0.957	0.926	0.065
Level of acceptable fit	<3	>0.9	>0.9	>0.9	<0.08
Acceptability	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable

4.3 Model Estimate and Modification Indices

A structural model tests a general model that prescribes the relationships among the latent

variables. In this study, a maximum likelihood estimate was applied to the latent variables for determining the path coefficient values of all the variables (Figure 1 and Figure 2).

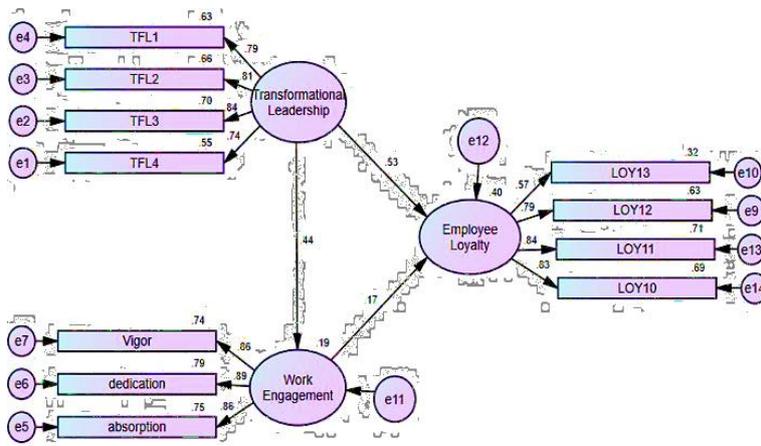


Figure 1: Structural Model 1

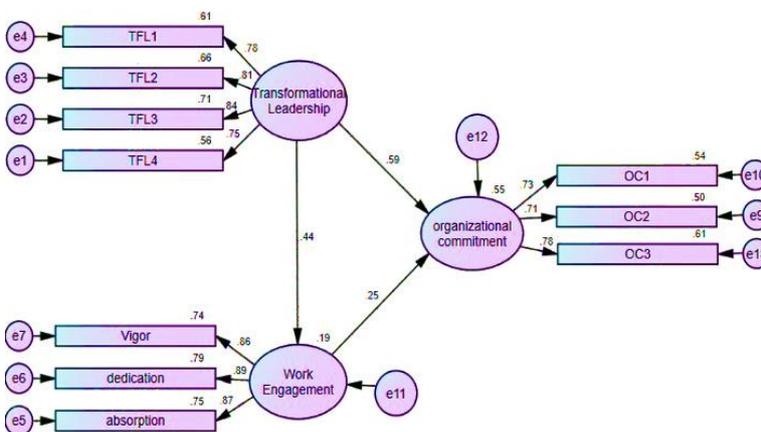


Figure 2: Structural Model 2

Table 4 shows the path coefficient and relationship between the cause and effect, we found that work engagement might be affected by transformational leadership (M1/M2 β :0.441/0.440, p =0.005/0.005), employee loyalty and organizational commitment would be affected by work

engagement (M1/M2 β :0.173/0.255, p =0.007/0.018). Transformational leadership might be significantly influenced employee loyalty and organizational commitment (M1/M2 β :0.533/0.591, p =0.012/0.004).

Table 4: Path Estimates Coefficient

Latent Constructs Path	Model	Standardized Path Coefficient	p-value
TFL→WE	M1	*0.441	0.005
WE→ELOY	M1	*0.173	0.007
TFL→ELOY	M1	*0.533	0.012
TFL→WE	M2	*0.440	0.005
WE→OC	M2	*0.255	0.018
TFL→OC	M2	*0.591	0.004

We found that transformational leadership would be directly and significantly impact on employee loyalty and organizational commitment (p =0.012/0.004, CI=0.400,0.644/0.462,0.716). Work engagement might be directly and significantly impact on employee loyalty and organizational commitment (p =0.007/0.018, CI=0.072,0.304/0.107,0.374), and transformational leadership would be directly and significantly

impact on work engagement (p =0.005/0.005, CI=0.375,0.562/0.385,0.561). In addition, transformational leadership might be indirectly and significantly impact on employee loyalty and organizational commitment through work engagement ($0.44 \times 0.173 = 0.076 / 0.533 \times 0.440 = 0.112$, p =0.003/0.013, CI=0.035,0.150/ 0.048,0.178) (Table 5). The work engagement is a partially mediator in this study.

Table 5: Total Effect Analysis of Work Engagement

Path	Parameter Estimate	BC 95% Confidence Interval	
		p-value	BC
Indirect effect			
TFL→WE→ELOY(M1)	0.076	0.003*	(0.035,0.150)
TFL→WE→OC(M2)	0.112	0.013*	(0.048,0.178)
Direct effect			
TFL→WE(M1)	0.441	0.005*	(0.357,0.562)
WE→ELOY(M1)	0.173	0.007*	(0.072,0.304)
TFL→ELOY(M1)	0.533	0.012*	(0.400,0.644)
TFL→WE(M2)	0.440	0.005*	(0.358,0.561)
WE→OC(M2)	0.255	0.018*	(0.107,0.374)
TFL→OC(M2)	0.591	0.004*	(0.462,0.716)
Total effect			
TFL→ELOY(M1)	0.672	0.007*	(0.523,0.709)
TFL→OC(M2)	0.703	0.004*	(0.626,0.788)

5. Discussion and Conclusion

The results were found that work engagement would be a crucial mediating role in linking transformational leadership to employee loyalty, and organizational commitment. Transformational leadership might be significantly affected work engagement in the both models, that is, supervisors who display a greater profile of transformational leadership maintain a higher level of work engagement. Manning (2016) conducted research on healthcare organization and reported that nurse manager leadership plays an imperative role in engaging staff nurses, nurse managers provide support and encourage through transformational leadership can positive impact on staff nurses work engagement and improve organizational outcomes. Transformational leadership and work engagement might be significantly and positively affected employee loyalty and organizational commitment,

indicating that high-level transformational leadership and work engagement lead to a high employee loyalty and organizational commitment. Anjam and Ali (2016) indicated that various leadership styles impact on the employee loyalty and suggested that transformational leadership has the highest impact on employee's loyalty. Al-Omar et al. (2019) showed that employee engagement has the potential to significantly affect employee loyalty and retention of pharmacist in Saudi Arabia. There was abundant research suggesting that transformational leadership is positively associated with organizational commitment in a diversity of organizational settings and cultures (Bono & Judge, 2003; Walumbwa & Lawler, 2003). Kanste (2011) conducted research on health care and indicated that work engagement was positively related to work commitment.

Furthermore, the result showed that the work engagement has a partially mediates the

relationship between transformational leadership, employee loyalty and organizational commitment, indicating that this variable is a crucial mechanism linking this leadership style, employee loyalty and organizational commitment. Therefore, previous research from an empirical perspective supports the findings of this study.

The result add evidence to the existing literature about the beneficial effects that work engagement has on home care workers and organizations by showing their impact on employee loyalty and organizational commitment and serving as a mechanism of action of transformational leadership. The reason why we divided two models in this study it is that there was not discriminant validity when we put the employee loyalty and organizational commitment in the same structural model, that is, this two constructs might be measured the same thing and according to the previous studies some scholars claim that these two variables are interchangeable, and some others believe that these two variables are totally different.

This study can demonstrate the mediating effect of work engagement and better understanding of the relationship between home care supervisors and home care workers will help to increase the engagement of the employees. It reflects the important role played by the relational task of home care supervisors such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The senior managers should rethink the role of home care supervisors. In addition, this research can make up for the lack of literatures in long term care related fields. It can provide practitioners and policy makers as reference to improve their lack of labor issue and increase their employee to be loyal. This research's finding implied that if home care services intend to strengthen employee loyalty and organizational commitment, they should begin by improving work engagement and providing transformational leadership training program.

This study has four main limitations. The first is the problem of external validity, this study cannot have generalized to other countries and cities. Second, our study was cross-sectional design and could not tested causal relationship among variables. Third, convenience sampling might limit the generalizability of the findings. Lastly, the self-report data could be susceptible to denial and response bias or self-selection bias.

Future studies should consider the following recommendation. First, it would be considered more indicators of transformational leadership to strengthen the model fit and use other dimensions of organizational commitment to explore the relationships between the variables. Second, longitudinal research could provide causal relationships among variables. Third, this study did not consider the other control variables, and future research can

consider characteristics variables to control other variables. Fourth, this study only investigated home care services in Taipei, New Taipei, and Taoyuan cities. We suggest that future studies can investigate more long-term care modes or home care services of different cities.

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