



The Influence of Perceived Organizational Support and Proactive Personality on Employee Engagement for University Lecturers: The Mediating Role of Self-Efficacy

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Abstract

The purpose of this paper is to investigate the influence of perceived organizational support (i.e. organization climate, peer support, and supervisor support) and proactive personality on employee engagement. It is hypothesized that the influence of perceived organizational support and proactive personality on employee engagement is not direct. However, it is mediated by self-efficacy. Using a quantitative analysis method, data were collected with questionnaires distributed to 401 university lecturers from both public and private universities in Thailand. The results revealed that perceived organizational support and proactive personality influenced employee engagement. However, the mediating role of self-efficacy on the relationships between perceived organizational support and proactive personality and employee engagement was not significant. The research has implications for lecturer recruitment. Particular behaviors in regard to both groups and supervisors, such as having a proactive personality, focusing on sharing, discussing related problems, and caring about others' well-being and value, were found to enhance employee engagement.

Keyword: perceived organizational support (POS), proactive personality, self-efficacy, employee engagement



Introduction

Universities offer higher education courses to share knowledge in various fields, including science and social science. Other key contributions of the university are to conduct research, develop existing theories, and provide able and qualified staff to industry. Lecturers, who are required to conduct research, help to develop academic theories, offer theoretical and practical advice to practitioners, and share the knowledge of their field with students are vital for universities. Selecting lecturers who are highly engaged with the university can greatly enhance the university's competency (Bowen and Ford, 2002; Shrand and Ronnie, 2019). High levels of engagement result in enhanced loyalty and organizational outcomes (González-Rico et al., 2018; Hajdarpasic et al., 2015).

Engagement refers to a positive and fulfilled work-related state of mind, which is attributed to three characteristics: dedication, absorption, and vigor (Schaufeli et. al., 2002). Firstly, dedication refers to being determined in one's work by demonstrating a sense of challenge, pride, inspiration, and enthusiasm. Secondly, absorption refers to being fully focused and happily occupied at work. Thirdly, vigor refers to the willingness to put effort into one's work and to have high levels of activity and mental resilience while working (Schaufeli et. al., 2002).

Although several previous studies (e.g. Sak, 2006, Bandura, 1997; Judge and Bono, 2001) investigated the antecedents of employee engagement, they focused only on external factors (such as perceived organizational support and supervisor support) as the major antecedents of engagement while internal factors (such as personality traits or the attitude of employees) were ignored. Hence, the present research fills this gap by incorporating internal factors, i.e. proactive personality as a major factor influencing employee engagement. Proactive personality refers to a person who can recognise opportunities, take the initiative and persevere until a desired change takes place (Frese et. al., 1996). A proactive person not only initiates actions to improve the current environment (Morrison and Phelps, 1999), but also seeks opportunities to learn, engage in study, and engage with the organization (Frese et al., 1996).

In addition to the direct influence of perceived organization support (POS) and proactive personality on engagement, the current research attempts to explain how POS and proactive personality can influence employee engagement. The present research contends that POS and proactive personality increase self-efficacy and hence, self-efficacy enhances employee



engagement. Self-efficacy refers to an individuals' belief about their capability to influence the project and live in the organization (Bandura, 1997). An individual with high self-efficacy is more likely to engage with the organization, be able to manage the environment to achieve goals, and exhibit high job satisfaction (Bandura, 1997). Therefore, the present research has the following objectives:

1. To investigate the direct influence of POS and proactive personality on employee engagement
2. To investigate whether the influence of POS on employee engagement is mediated by self-efficacy.
3. To investigate whether the influence of proactive personality on employee engagement is mediated by self-efficacy.

Literature review and hypothesis formulation

Social cognitive theory (Wood and Bandura, 1989) states that human behavior results from personal factors and the environment. A positive personality and organization environment can yield better organizational outcomes, such as new ideas, actions, and engagement in the organization. Job-Demand Resource theory (JD-R) (Schaufeli and Bakker, 2004) and Perceived Organization Support theory (POS) (Rhoades and Eisenberger, 2002) also confirmed that a supportive environment from the organization, supervisors, and peers encourages employee engagement.

The term 'proactive personality' refers to individuals who take the initiative to improve the current environment and take opportunities to learn and engage with the organization (Frese et al., 1996; Morrison and Phelps, 1999). Having a proactive personality enhances an employee's ability and desire to work and hence, increases employee engagement.

Furthermore, previous empirical research also emphasized the importance of self-efficacy on employee engagement. Self-efficacy is one of the factors that influence employee engagement. (Caesens and Stinglhamber, 2014; Dikker et al., 2010; Islam and Ahmed, 2018; Harju et al., 2016; Chen, 2016). Self-efficacy, an individuals' belief about their capability to influence the project and live in the organization (Bandura, 1997), has been found to mediate the influence of



POS on employee engagement (Caesens and Stinglhamber, 2014; Bakker and Demerouti, 2008).

POS, i.e. organizational climate, supervisor support, and peer support, enhances employee self-efficacy, which in turn, results in better organizational outcomes (Bandura, 1997; Judge and Bono, 2001).

Hypothesis development

Perceived organizational support and employee engagement

According to Social Exchange Theory (SET) and POS theory, the organizational climate, and peer and supervisor support are associated with employee engagement. Islam and Ahmed (2018) found that the perception of organizational support could encourage employees' belief and trust in the organization. The provision of support from the organization is the most important environmental factor that influences engagement (Islam and Ahmed, 2018). Baldwin and Ford (1988) indicated that major sources of support are supervisors, peers, employees, and seniors.

Afzal et al. (2019) found that supervisory support determined the relationship between the supervisor and the employees. When the employee perceives a high level of supervisor support, they are more willing to commit to the organization. Emerson (1976) proposed that mutual benefit, reward exchange and reciprocal actions by the supervisor and subordinates result in engagement. Moreover, Sloan (2012) indicated that supervisor support and co-worker support are essential mechanisms that reduce stress in the work environment.

The empirical study of Kundu and Lata (2017) confirmed that supportive work environments including perceived organizational climate, supervisor relationship, and peer group interaction are positively related to organizational engagement. In addition, Richman et al. (2008) and Shuck et al. (2010) found that engagement results from peer and supervisor relationships, the work environment, organizational policy, and a supportive work climate. Furthermore, the empirical results of Saks (2006) revealed that POS could predict job engagement and organizational engagement. Therefore, it is hypothesized that:



H1: Perceived organizational support positively influences employee engagement.

Proactive personality and employee engagement

Proactive personality is one of the key factors influencing employee engagement. Highly proactive individuals are more likely to take the initiative, take action, and persevere to obtain the desired result (Frese et al., 1996; Morrison and Phelps, 1999). Jawahar and Liu (2016) indicated that proactive employees tend to be able to cope with change in their career to maintain career satisfaction. Furthermore, a proactive personality not only enhances career satisfaction, but also enhances the feeling engagement toward the organization. Dikker et al. (2010) stated that feeling engagement is connected to having a proactive personality. Haynie et al. (2017) indicated that having a highly proactive personality leads to fewer negative attitudes toward the organization and increases the perception of job engagement. Hence, proactive personality could be regarded as an antecedent of employee engagement.

Previous empirical studies revealed a significant relationship between proactive personality and employee engagement. By collecting data from 794 Dutch government employees, Dikkers et al. (2010) found that having a proactive personality was associated with engagement. Haynie et al. (2017) studied 193 teachers in the South-Eastern USA and found that proactive personality was associated with engagement. Therefore, it is hypothesized that:

H2: Proactive personality positively influences employee engagement.

Perceived organizational support (POS) and self-efficacy

Previous literature (e.g. Day and Allen, 2004) indicated that interpersonal and organizational support are important antecedents of self-efficacy. POS was found to have a positive relationship with self-efficacy. By collecting data from employees who were working for two private Belgian organizations, Caesens and Stinglhamber (2014) found that self-efficacy partially mediates the relationship between POS and work engagement. Employees who felt that they were valued and supported by organizations were more likely to develop an intrinsic interest in their tasks (Caesens and Stinglhamber, 2014). Islam and Ahmed (2018) indicated that POS was significantly related to self-efficacy. In addition, self-efficacy also performed a mediating role between POS and job satisfaction (Islam and Ahmed, 2018). Afzal et al. (2019) revealed that self-efficacy played a mediating role in the relationship between POS and task performance. Similarly,



Ibrahim, Suan, and Karatepe (2019) found that self-efficacy mediated the relationship between supervisor support and work engagement. Therefore, it is hypothesized that:

H3: Perceived organizational support positively influences self-efficacy.

Proactive personality and self-efficacy

Jawahar and Liu (2016) revealed that highly proactive individuals are able to take the initiative, identify opportunities, change their job boundaries, and take action until they achieve their goal. A highly proactive employee always seeks opportunities to learn and engages in study activities (Morrison and Phelps, 1999; Frese et al., 1996). Major et al. (2006) indicated that having a proactive personality can boost the motivation to learn and engage in improving activities, and thus enhance self-efficacy. Having a proactive personality reinforces employees' self-efficacy. Individuals can acquire a greater sense of efficacy when they can eliminate obstacles and reach a goal through their perseverance (Wood and Bandura, 1989). Having a proactive personality plays an important role for an individual to achieve the target, and the experience of achievement can enhance self-efficacy. Therefore, it is hypothesized that

H4: Proactive personality positively influences self-efficacy.

Self-efficacy and employee engagement

Self-efficacy is a major factor that influences employee engagement. Previous literature revealed a positive association between self-efficacy and employee engagement. Mustafa et al. (2019) stated that self-efficacy encourages working efficiency and leads to enhanced work performance and an increase in self-efficacy could be helpful in developing effective work behaviors. Self-efficacy enhances intrinsic motivation through POS and supervisory support, which affect employee engagement. Chen (2016) and Mustafa et al. (2019) indicated that individuals who have a high level of self-efficacy have greater intrinsic motivation to engage with their work. Therefore, it is hypothesized that:

H5: Self-efficacy positively influences employee engagement

According to related theories, the present study proposes the following conceptual framework:

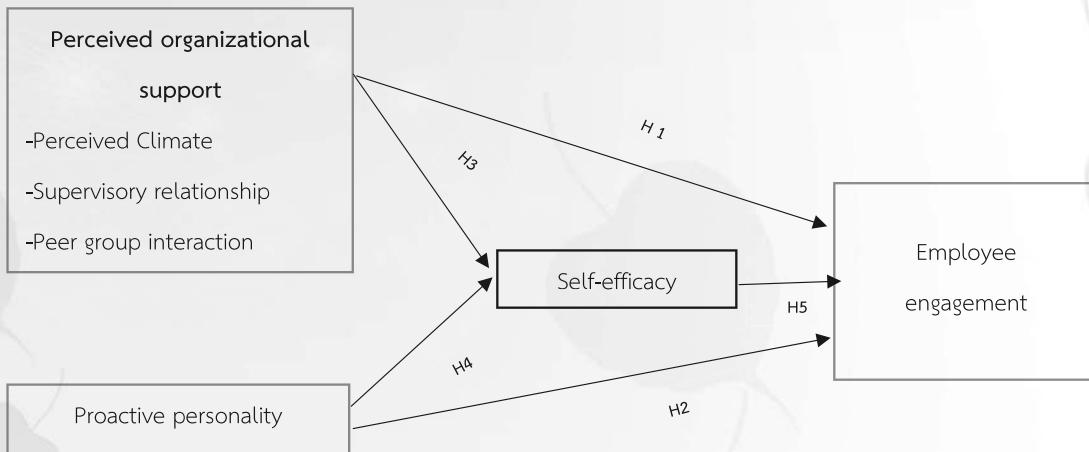


Figure 1 Conceptual Framework for the Antecedents of Employee Engagement

Research Method

Measurement of the variable

POS was operationalized by Islam and Ahmed (2018) and Kundu and Lata (2017), and included sample items such as “The work environment at my organization is good”, “My work supervisor really cares about my well-being”, and “Employees can collectively influence many important issues in the department” and “My organization takes pride in my accomplishments.” Proactive personality was measured by Elsaied (2019). A sample item is “If I believe in an idea, no obstacle will prevent me from making it.” Self-efficacy was measured by Islam and Ahmed (2018), and included sample items such as “I have all the technical knowledge, I need to deal with my job.” Finally, employee engagement was measured through the sample items of Guan and Frenkel (2018), which included sample items such as “At my job, I feel strong and vigorous.” The scale of measurement items is a five-point Likert scale. The respondents are asked to rate each question from 1= “Strongly disagree”, 2= “Disagree”, 3= “Neutral”, 4= “Agree”, to 5= “Strongly agree” (Sekaran and Bougie, 2011)

Structural equation model (SEM) and Confirmatory factor analysis (CFA)

Based on the conceptual framework presented in Figure 1, all of the hypotheses were analyzed by employing Structure Equation Modeling (SEM). In addition, confirmatory factor



analysis (CFA) was utilized to test the consistency between the theoretical factors before exploring the regression weights (Dragan and Topolšek, 2014).

Data Collection

The present study collected primary data by employing a questionnaire. The respondents were lecturers at both public and private universities in Thailand. The total population of lecturers in Thailand was 74,922 (Ministry of Higher Education, Science, Research and Innovation, 2018). In regard to the calculation of sample size, the number of variables includes 22 indicators, with an acceptable ratio of 5 observations per unit. Thus, the minimum requirement of sample size is 110 lecturers at the 95% confidence level. A snowball sampling method was utilized to collect data. The researcher distributed the questionnaire to the University Lecturers' Association, who then recruited members of the sample population that met the criteria. The respondents came from a range of universities in Thailand

Reliability testing

A pretest was also required to confirm the consistency of the measurements (Field, 2013). Cronbach's alpha was utilized to test the reliability of the questionnaire. The sample size used to test Cronbach's alpha was 30 respondents. The acceptable value of Cronbach's alpha must be 0.70 or higher (Field, 2013). The results from the reliability test indicated that Cronbach's alpha for all variables was above 0.7, which indicates the high internal consistency of each variable in the model.

Table 1 The Results of the reliability test

Constructs	Total Items	Cronbach's alpha
1.Perceived organizational support	15	0.931
2.Proactive personality	10	0.868
3.Self-efficacy	5	0.858
4.Job crafting	9	0.813
5.Employee engagement	9	0.889



Table 2 Data analysis

Information	Detail	Frequency	Percent
Gender	Male	165	41.1
	Female	235	58.6
	Missing	1	0.2
Education	Master degree	158	39.4
	Doctoral degree	238	59.4
	Missing	5	1.2
Number of hours taught each week	Less than 6 hours / week	57	14.2
	6-10 hours / week	121	30.2
	11-15 hours / week	152	37.9
	16-20 hours / week	42	10.5
	20 hours / week and above	29	7.2
Academic title	Lecturer	294	73.3
	Assistant professor	86	21.4
	Associate professor	18	4.5
	Professor	2	0.5
	Other	1	0.2
University	Public	251	62.6
	Private	150	37.4
	Total	401	401

The results in Table 2 show that the total number of respondents was 401. The largest group of respondents was female, which accounted for 58.6 percent of total respondents. About 62.6% of the respondents were lecturers who worked at a public university while 37.4% worked at private universities. The lecturers who had completed a doctoral degree accounted for 59.4 percent. In regard to academic titles, most of the sample were lecturers at 73.3% of the total.

The measurement model in structural equation modeling

Confirmatory factor analysis (CFA)

Before testing the hypotheses, confirmatory factor analysis was conducted to test the model fit. Perceived Organizational Support (POS) was classified into 3 sub-factors: perceived

climate of the organization, supervisor relationship, and peer group interaction. The results are presented in Table 3

Table 3 Incremental fit indices

Model	NFI	RFI	IFI	TLI	CFI	RMSEA
1.Default model	.946	.935	.975	.970	.974	0.046

Dragan and Topolšek (2014) recommended that χ^2/df should be lower than 3, and the P value should be greater than 0.05. Even though the model did not fit well according to the chi-square goodness-of-fit test, $\chi^2/df = 1.837$, $p = .000$, it was consistent with the model fit because this value is highly sensitive for a large sample. However, all important criteria were excellent as the baseline comparisons fit indices of NFI, RFI, IFI, TIL, CFI exceeded 0.9 (Ho,2006). Thus, all of the latent variables fit very well.

Structural equation model on employee engagement

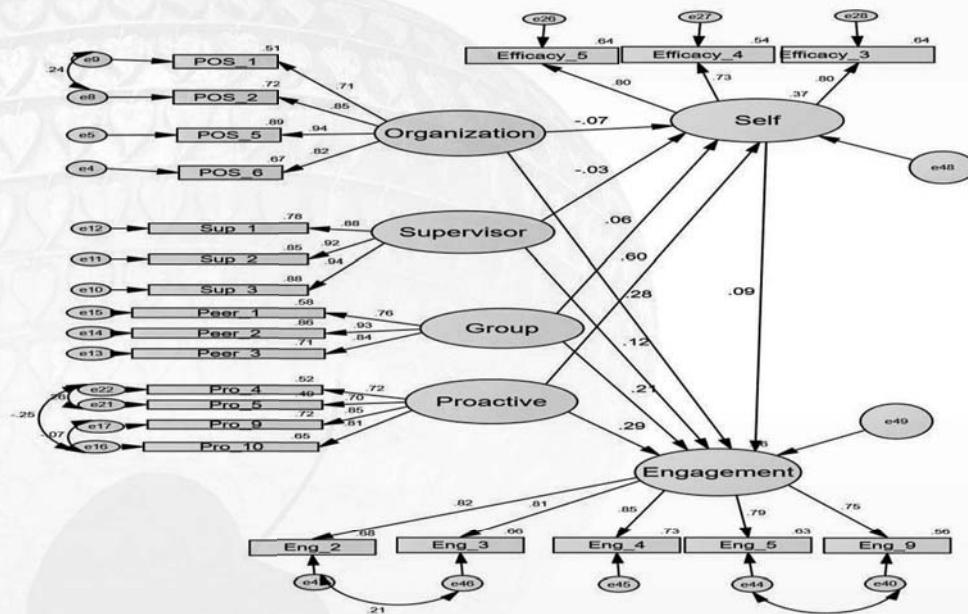


Figure 2 The path relationship model on employee engagement



Table 4: Fit indices of structural equation model for employee engagement

Model	NFI	RFI	IFI	TLI	CFI
1. Direct model	.876	.852	.902	.883	.902
2. Indirect model	.855	.831	.882	.861	.881

Table 4 shows the fit indices of the structural equation model for employee engagement. The baseline comparison fit indices of NFI, RFI, IFI, TLI, and CFI for both the direct and indirect models show that the model did not fit well because they are close to 0.9 (range: 0.85 to 0.90). In addition, the probability level =.000, which represents significance. However, the criteria state that these indices should be insignificant or the probability level should be greater than 0.05. However, these statistics are excluded from the analysis of this study because the chi-square is very sensitive to a large sample size. The larger the sample size, the more likely it is that the p-value is significant. (Ho, 2006).

Results and Interpretation

Perceived organizational support and employee engagement

Table 5 Structural relationship between perceived organizational support and employee engagement

	Path in the model	Estimate	Critical	P-Value
			Ratio (C.R.)	
H1a: Perceived climate	→ Employee engagement	0.282	5.378	.000***
H1b: Supervisory relationship	→ Employee engagement	0.119	2.459	.014
H1c: Peer group interaction	→ Employee engagement	0.210	4.138	.000***

In hypothesis 1, POS was classified into three major aspects, i.e. perceive climate, supervisor relationship, and peer group interaction. The results revealed that perceived climate



significantly influenced employee engagement at the 0.01 level ($\beta = .282$; C.R.= 5.378; $P < 0.001$). Supervisory relationship significantly influenced employee engagement at the 0.05 level ($\beta = .119$; C.R.= 2.459; $P = .014$) and peer group interaction significantly influenced employee engagement at the 0.01 level ($\beta = .210$; C.R.= 4.138; $P < 0.001$). Therefore, hypothesis 1 was supported.

Proactive personality and employee engagement

Table 6 Structural relationship between proactive personality and employee engagement

Path in the model	Estimate	Critical Ratio	P-Value
	(C.R.)		
H2a: Proactive personality → Employee engagement	0.294	3.988	.000***

Hypothesis 2 tests the relationship between proactive personality and employee engagement. The results show that proactive personality was significantly related to employee engagement at the 0.01 level ($\beta = 0.294$; C.R.= 3.988; $P = .000***$). Therefore, hypothesis 2 was supported.

Perceived organizational support and self-efficacy.

Table 7 Structural relationship between perceived organizational support and self-efficacy

Path in the model	Estimate	Critical Ratio	P-Value
	(C.R.)		
H3a: Perceived climate → Self-efficacy	-0.065	-1.330	.183
H3b: Supervisory relationship → Self-efficacy	-0.027	-.563	.573
H3c: Peer group interaction → Self-efficacy	0.061	1.234	.217



The results indicate that the relationships between perceived climate and self-efficacy ($\beta = -.065$; C.R. = -1.330; $P = .183$), supervisory relationship and self-efficacy ($\beta = -.027$; C.R. = -.563; $P = .573$), and peer group interaction and self-efficacy ($\beta = -.061$; C.R. = 1.234; $P = .217$) were not significant at the 0.05 level. Therefore, hypothesis 3 was rejected.

Proactive personality and self-efficacy.

Table 8 Structural relationship between proactive personality and self-efficacy

Path in the model	Estimate	Critical Ratio	P-Value
	(C.R.)		
H4a: Proactive personality → Self-efficacy	.600	8.739	.000***

Hypothesis 4 tests the relationship between proactive personality and self-efficacy. The results show that proactive personality positively influenced self-efficacy at the 0.01 level ($\beta = .600$; C.R. = 8.739 ; $P < .000***$). Therefore, hypothesis 4 was supported.

Self-efficacy and employee engagement

Table 9 Structural relationship between self-efficacy and employee engagement

Path in the model	Estimate	Critical Ratio	P-Value
	(C.R.)		
H5a: Self-efficacy → Employee engagement	.091	1.282	.200

The results indicate that self-efficacy did not significantly influence employee engagement at the 0.05 level ($\beta = .091$; C.R. = 1.282 ; $P = .200$). Therefore, hypothesis 5 was not supported.



Discussion

The direct relationship between POS, proactive personality, and employee engagement

The findings indicated that perceived climate, supervisory relationship, and peer group interaction influenced employee engagement. The result was consistent with Kundu and Lata (2017) Islam and Ahmed (2018), who indicated that POS positively influenced job engagement and organization engagement. Lecturers who received positive hedonic value responded positively and showed reciprocation by engaging with the university. Moreover, the result was also consistent with Zoller and Muldoon (2019), Cropanzano et al. (2017), who explained that when subordinates are treated well, they typically reciprocated toward their supervisor in terms of positive hedonic value. Furthermore, Afzal et al. (2019) recommended social exchange theory in order to explain the behavioral interaction between actor and target group and how these behavioral interactions reciprocally reinforce the other's behavior. Social exchange theory is typically used to explain the behavioral interaction between organizational support and employee engagement. Support from the organization engenders positive behavior by the employees. The lecturers of the university perceived positive hedonic value from their supervisor and environment, which provided a supportive environment to reach their goals and match their values. Lecturers who received support were more likely to reciprocate and engage with the university.

The results reveal that lecturers who had a highly proactive personality were more likely to be positively engaged. The results are consistent with Dikkers et al. (2010), Haynie et al. (2017), and Kahn (1990) who found that proactive personality positively influenced engagement. Lecturers with a highly proactive personality were more likely to reciprocate through engagement. This is consistent with the findings of Dikkers et al. (2010) who indicated that people with a proactive personality were more likely to improve work strategies through enhanced intrinsic or extrinsic motivation, which leads to increased employee engagement. In this case, university lecturers with a proactive personality engaged more in learning and improving the current circumstances.



The indirect relationship between POS, proactive personality, and employee engagement with self-efficacy in a mediating role

The results of this study revealed that self-efficacy did not perform a mediating role between POS and employee engagement. The result was interesting because many empirical studies found that self-efficacy did perform a mediating role between POS and positive outcomes such as task performance, job satisfaction, and commitment (Afzal et al., 2019; Islam and Ahmed, 2018; Pillai and Williams, 2004)

Moreover, the present study found that having a proactive personality influenced self-efficacy but self-efficacy did not influence employee engagement. The result of this study was consistent with Dikkers et al. (2010) and Haynie et al. (2017), who found that having a proactive personality influenced engagement. Therefore, lecturers who displayed proactive behavior were more likely to engage with the university. However, the result of this study was interesting in that the relationship between self-efficacy and employee engagement was not significant. This may indicate that self-efficacy alone was not sufficient to enhance employee engagement. Self-efficacy is the belief in one's ability to perform a task. It explains people's beliefs about their efficacy through self-instruction, exhortation, interpretive treatment, and guided practice with corrective feedback, which was instilled in this study to develop employee engagement through self-efficacy (Wood and Bandura, 1989). However, self-efficacy alone may not be sufficient if employees do not use it to perform tasks. Other factors may have influence and be integrated with self-efficacy to enhance engagement.

From a self-efficacy perspective, the surrounding environment tends to change, so the university needs to allow lecturers to have the independence to design courses, employ new teaching methods, and participate in seminars to exchange knowledge based on their efficacy. However, these requirements must be in line with the curriculum. Therefore, employees have to interact as well as possess the creativity and ability to perform a task, such as changing the scope or boundaries of the job to achieve their target based on their efficacy, which may lead to increased employee engagement.



Implications of the study

Managerial implications

The results of this study have managerial implications for the university in the selection of employees who are likely to engage with the organization. Selecting lecturers with a proactive personality is important. Furthermore, to enhance engagement, the university needs to provide resources and support the lecturers in a changing environment. Lecturers should display proactive characteristics in order to be able to design and redesign courses and teaching methods, and participate in seminars to exchange knowledge. Therefore, it appears beneficial for the university to recruit lecturers who are proactive and have inspiration for their work, which leads to engagement with the university.

Furthermore, the results show that perceived climate, supervisory support, and peer group interaction influence employee engagement. The university needs to improve the university environment by caring about lecturers' well-being and by displaying pride in their accomplishments. Supervisors in the faculty need to listen carefully to lecturers' opinions and considering their goals and values, for example, by organizing special seminars to develop staff capability and career development. In addition, the peer group of lecturers needs to brainstorm and share issues on related problems to improve courses, share teaching methods and work closely together to achieve organizational goals.

Recommendations for future research

The results of this study revealed that self-efficacy was not significantly related to employee engagement. However, it does not mean that it is not important. The mechanism through which self-efficacy influences engagement may not be direct. Thus, the researcher proposes two issues to address in future research.

Firstly, self-efficacy may influence a proactive personality, and having a proactive personality may enhance engagement. Therefore, the researcher proposes the related job design theories should be investigated in regard to self-efficacy and the university environment.



Secondly, the present research collected data from university lecturers in Thailand, so the results may not be generalizable to other locations or occupations. Future research may extend the present study to other careers and other types of organization.

References

Afzal, S., Arshad, M., Saleem, S., & Farooq, O. (2019). The impact of perceived supervisor support on employees' turnover intention and task performance. Mediating of self-efficacy. *Journal of management development*, 38(5), 369-382.

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13, 209-223.

Baldwin, T.T., & Ford, J.K. (1988). Transfer of training: a review and directions for future research. *Personnel Psychology*, 41(1), 63-105.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175-1184.

Bowen, J., & Ford, R.C. (2002), Managing service organizations: does having a 'thing' make a difference? *Journal of Management*, 28(3), 447-469.

Caesens, G., & Stinglhamber, F. (2014). The relationship between perceived organizational support and work engagement: the role of self-efficacy and its outcomes. *European Review of Applied Psychology*, 64(5), 259-267.

Cropanzano, R., Anthony, E.L., Daniels, S.R., & Hall, A.V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, 11(1), 1-38

Chen, I. (2016) Examining the linkage between creative self-efficacy and work engagement. The moderating role of openness to experience. *Baltic Journal of Management*, 11(4), 516-534.

Day, R., & Allen, T.D. (2004). The relationship between career motivation and self-efficacy with protégé career success. *Journal of Vocational Behavior*, 64(1), 72-91.

Dikkers, J.S.E., Janen, P.G.W., De Lange, A.H., Vinkenburg, C.J., & Kooij,D. (2010). Proactivity, job characteristics, and engagement: A longitudinal study. *Career development international*, 15(1), 59-77



Dragan, D., & Topolšek, D. (2014). *Introduction to structural equation modeling : Review, Methodology and practical application*. Retrieved September 3,2020, from Researchgate Website: <https://www.researchgate.net/publication/267810858>

Elsaied, M.M. (2019). Supportive leadership, proactive personality and employee voice behavior: The mediating role of psychological safety. *American Journal of Business*, 34(1), 2-18.

Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 2: 335-362.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th edition). Los Angeles: SAGE

Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: differences between East and West Germany. *Academy of Management Journal*, 39(1), 37-63.

González-Rico, P., Carvalho, V.S., Chambel, M.J., & Guerrero, E. (2018). Be well at work, be well outside work: a study with universityworkers. *Studies in Higher Education*, 43(6),1034-1044.

Guan,X., & Frenkel, S. (2018). How HR practice, work engagement and job crafting influence employee performance. *Chinese Management Study*, 12(3), 591-607.

Hajdarpasic, A., Brew, A., & Popenici, S. (2015). The contribution of academics' engagement in research to undergraduate education. *Studies in Higher Education*, 40 (4),644-657.

Harju, L.K., Hakanen, J.J., & Schaufeli, W.B. (2016). Can job crafting reduce job boredom and increase work engagement? A three-year cross-lagged panel study. *Journal of Vocational Behavior*, 95/96, 11-20.

Haynie, J.J., Flynn, C.B., & Mauldin, S. (2017). Proactive personality, core self-evaluations, and engagement: The role of negative emotions. *Management decision*, 55(2), 450-463

Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. USA: Champman & Hall/CRC

Ibrahim, S.N.H., Suan, C.L., & Karatepe, O. (2019). The effect of supervisor support and self-efficacy on call center employees' work engagement and quitting intentions. *International Journal of Manpower*, 40(4),2019

Islam, T., & Ahmed, I. (2018). Mechanism between perceived organizational support and transfer of traning: Explanatory role of self-efficacy and job satisfaction. *Management research review*, 41(3), 296-313



Jawahar, I.M., & Liu, Y. (2016). Proactive personality and citizenship performance : The mediating role of career satisfaction and the moderating role of political skill. *Career development international*, 21(4), 378-401

Judge, T.A., & Bono, J.E. (2001). Relationship of core self-evaluation traits – self-esteem, generalized self-efficacy, locus of control, and emotional stability – with job satisfaction and job performance: a meta-analysis. *Journal of Applied Psychology*, 86(1), 80-92.

Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at Work. *Academy of Management Journal*, 33(4), 692-724.

Kundu, S.C., & Lata, K. (2017). Effects of supportive work environment on employee retention. *International journal of organizational analysis*, 25(4), 703-722.

Major, D.A., Turner, J.E., & Fletcher, T.D. (2006). Linking proactive personality and the Big Five to motivation to learn and development activity. *Journal of Applied Psychology*, 91(4), 927-935.

Ministry of higher education, Science, Research and Innovation. (2018). *Higher education statistics2018*. Retrieved February, 20, 2021 From MHESI Website: www.mhesi.go.th

Morrison, E.W., & Phelps, C.C. (1999). Taking charge at work: extrarole efforts to initiate workplace change. *Academy of Management Journal*, 42(4), 403-419.

Mustafa, G., Glavee-Geo, R., Gronhaug, K., & Almazrouei, H.S. (2019). Structural impacts on formation of self-efficacy and its performance effects. *Sustainability*, 11, 1-24

Pillai, R., & Williams, E.A. (2004). Transformational leadership, self-efficacy, group cohesiveness, commitment, and performance. *Journal of Organizational Change Management*, 17(2), 144-159.

Richman, A.L., Civian, J.T., Shannon, L.L., Jeffrey Hill, E., & Brennan, R.T. (2008). The relationship of perceived flexibility, supportive work-life policies, and use of formal flexible arrangements and occasional flexibility to employee engagement and expected retention. *Community, Work & Family*, 11(2), 183-197.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of Applied Psychology*, 87(4), 698-714.

Saks, A.M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619



Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.

Schaufeli, W.B., Salanova, M., González-romá, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.

Sekaran, U., & Bougie, R. (2009). *Research Methods for Business*. Fifth edition. United Kingdom: Wiley.

Shrand, B., & Ronnie, L. (2019). Commitment and identification in the ivory tower: academics' perceptions of organisational support and reputation, *Studies in Higher Education*, pp. 1-15.

Shuck, B., Rocco, T.S., & Albornoz, C.A. (2010). Exploring employee engagement from the employee perspective: implications for HRD. *Journal of European Industrial Training*, 35(4), 300-325.

Sloan, M.M. (2012). Unfair treatment in the workplace and worker well-being: the role of coworker support in a service work environment. *Work and Occupations*, 39 (1), 3-34.

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *The academic of management*, 14(3), 361-384

Zoller, Y. J., & Muldoon, J. (2019). Illuminating the principles of social exchange theory with Hawthorne studies. *Journal of Management History*, 25(1), 47-66