

## RESEARCH ARTICLE

# THE INFLUENCE OF PSYCHOLOGICAL OWNERSHIP ON INTENTION TO STAY AMONG ACADEMICS EMPLOYED AT MALAYSIAN RESEARCH UNIVERSITIES: THE MEDIATING ROLE OF EMPLOYEE ENGAGEMENT

Yean Sze Ong\*, Noor Fareen Abdul Rahim, and Haniruzila Md. Hanifah

Graduate College of Business, Universiti Sains Malaysia, Penang, Malaysia

**ABSTRACT** - In the context of Malaysian research universities, this study examined how psychological ownership influenced Malaysian academics' intention to stay. Based on self-determination theory, a model was developed to investigate how psychological ownership and employee engagement might improve the intention to stay. A questionnaire survey was used to gather the data, which was then analyzed using partial least squares structural equation modeling (PLS-SEM). The results show that psychological ownership positively and significantly impacts employee engagement. The intention of an employee to stay is also positive and significantly impacted by employee engagement. In addition, when employing employee engagement as a mediator, psychological ownership also revealed a significant indirect effect on the intention to stay. The novelty of this study contributed to the body of knowledge on psychological ownership and intention to stay while also shedding light on the mediation of employee engagement in the context of Malaysian research universities. The findings of this study also have significant practical implications for academics and policymakers who wish to understand the roles of psychological ownership and employee engagement that contribute to the intention to stay among academics.

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## INTRODUCTION

The phrase “intention to stay” refers to an employee’s desire to stay with the organization after giving it significant thought and being conscious of their choice (Tett & Meyer, 1993). According to earlier studies that have sought to assess staff retention, the constructs of intention to leave and intention to stay have been used interchangeably (Alemu & Pykhtina, 2020; Ghosh, Satyawadi, Joshi, & Shadman, 2013; Nancarrow, Bradbury, Pit, & Ariss, 2014). They concluded that the implicit assumption for both constructs appears to reflect opposing sides of the same coin. However, an employee’s intention to leave their current employment may not always affect that employee’s intention to stay at that employment (Bello & Steil, 2020; Chamchan & Kittisuksathit, 2019).

Therefore, understanding the elements that affect an employee’s intention to stay has become a critical issue and an imperative concern for organizations everywhere (Mehrez & Bakri, 2019; Naim & Lenka, 2017; Naim & Lenka, 2016). Within the higher education sector, the issue is especially paramount because retaining competent academics entails not only having the necessary knowledge, skills, and expertise but also a collection of professional resources that are required to carry out a particular task and to stay abreast of the latest innovations (Kandasamy, Munusamy, & Arumugam, 2018; López-Meneses, Sirignano, Reyes-Tejedor, Cunzio, & Gómez-Galán, 2017). Researchers have pointed out that a research university’s future depends on the intellectual capital, creative ability, and devotion of their academics as compared to other organizations (Hundera, 2014; Kadiresan, Arumugam, Selamat, & Parasuraman, 2016; Ng’ethe, Iravo, & Namusonge, 2012; Yimer, Nega, & Ganfure, 2017). As a result, there is a greater need for human resource development practitioners in research universities to pinpoint the elements that enhance academics’ intention to stay (Matongolo, Kasekende, & Mafabi, 2018).

According to data provided by the Registrar Department of a public educational institution in Malaysia, there is a greater number of medical lecturers leaving research universities, with Universiti Sains Malaysia losing 38 lecturers and the University of Malaya losing 21 clinic lecturers in 2013 (Saraih, Aris, Sakdan, & Ahmad, 2017; Yunus & Pang, 2015). The number of Malaysian academics in five Malaysian research universities has decreased from 9,937 in 2013 to 9,356 in 2019, with a total of 581 confirmed cases of Malaysian academics leaving the institution (Ministry of Education Malaysia, 2014; Ministry of Higher Education, 2019; Ministry of Higher Education Malaysia, 2020). According to Noor and Ismail (2016) and Wan (2022) Many academics have left Malaysian research universities due to work-related stressors, which are closely related to heavier research and teaching loads. This issue was quite alarming for the institution.

As suggested by several researchers, organizations must improve and sustain employee engagement to increase the likelihood of their staff’s intention to stay (Beck & Harter, 2015; Dabke & Patole, 2014; Harter, 2015). For instance, Taylor (2012) found that engaged employees were three times more likely to be satisfied with their job and twice as likely

to stay in their existing positions. Gallup (2016) reported that only 34% of university faculty and staff are actively engaged in their work, making universities among the least engaged workplaces in the world. Quantum Workplace (2016) also reported that the industries with the fewest engaged employees were in academia or higher education (60%). In this light, identifying the factors that influence academic engagement and keeping them in their current employment is critical.

Although prior studies have found a range of latent antecedents that can influence employee engagement, some researchers believe intrinsic motivation, rather than external motivation, maybe a better predictor of employee engagement (Chiniara & Bentein, 2016; Crome, Meyer, Bosanquet, & Hughes, 2019; Meyer, 2017; Meyer & Gagné, 2008; Parfyonova et al., 2019). Meyer and Gagné (2008) also urged additional studies to discover and explain the innate psychological needs that contribute to higher levels of engagement. With an emphasis on innate psychological needs rather than extrinsic or external motivation, the most optimal types of motivation derive from self-determination theory (Shuck, Peyton Roberts, & Zigarmi, 2018; Whipp & Salin, 2018). On the other hand, in the context of Malaysian research universities, in-depth investigations on the innate psychological need to increase employee engagement among academics were found to be inadequate (Haivas, Hofmans, & Pepermans, 2013; Tauhed, Rasdi, Samah, & Ibrahim, 2018).

According to Rathakrishnan, Imm, and Kok (2016), when academics have a sense of ownership over their tasks, this increases their commitment to management, which in turn may lessen their desire to quit. Kavya and Padmavathy (2017) believed that a feeling of ownership is where real engagement begins because a highly engaged employee takes on ownership, and their enthusiasm will further contribute to an organization's success. Because academics are the focal point that determines a university's status and reputation, university management must ensure that the academics have a sense of psychological ownership, as this encourages individuals to feel responsible for their jobs and the organisation's success (Jakada, 2019).

As indicated in a range of reviews and meta-analyses, many scholars have endeavoured to comprehend the antecedents and outcomes of employee engagement (e.g., Azman et al., 2016; Gilani & Cunningham, 2017; Kavya & Padmavathy, 2017; Malinowska et al., 2018). There has also been an argument that the mediation of engagement strengthens indirect relationships (Broeck, Ferris, Chang, & Rosen, 2016; Riyanto, Endri, & Herlisha, 2021; Shuck, Zigarmi, & Owen, 2015). However, in the context of Malaysian research universities, little empirical evidence has explored employee engagement as a mediator in the relationship between innate psychological needs and the academics' intention to stay.

This study explores the elements that impact the intention to stay rather than putting effort into retaining staff who have already opted to leave, which is too late to change their minds. It was considered imperative to understand the relationship between psychological ownership as antecedents of employee engagement, which provides insight into what matters to employees and how such fundamental psychological ownership leads to academics' intention to stay. This study also investigated the relationship between psychological ownership and the intention to stay by looking at employee engagement as a mediator.

## LITERATURE REVIEW

The prior research on intention to stay, employee engagement, and psychological ownership is reviewed and analyzed in this section.

### Intention to Stay

The term "intention to stay" refers to an employee's deliberate decision to continue working for the organization (Tett & Meyer, 1993). By drawing from a wide range of literature, there is a significant corpus of research on employee turnover intentions and why employees leave organizations (Ainer, Subramaniam, & Arokiasamy, 2019; Awal, Kumar, Saha, & Saha, 2020; George, 2015; Owusu & Gregar, 2021). Some researchers made the erroneous assumption that the intention to stay is the inverse of the intention to quit an organization (turnover intention) (Chinomona, 2017; Chinomona & Dhurup, 2015; Dabke & Patole, 2014; Johari et al., 2012; Li, Zhang, Yan, Wen, & Zhang, 2020; Woon, Tan, & Nasurdin, 2017). However, some scholars now disagree and argue that turnover and retention are not "two sides of the same coin" (Akhtar, Salleh, Ghafar, Khurro, & Mehmood, 2018; Cardy & Lengnick-hall, 2011; George, 2015; Holtom, Mitchell, Lee, & Eberly, 2008; Nancarrow et al., 2014). This is because the potential causes of employee turnover can usually explain why employees quit their jobs, but they are unable to explain why employees choose to stay in their employment (Akhtar et al., 2018; Sanjeevkumar, 2012).

Self-determination theory-based research has claimed that innate psychological needs can be imperative predictors of meaningful life (Martela, Ryan, & Steger, 2018), meaningful work (Martela & Riekk, 2018), students' motivational processes (Wang, Liu, Kee, & Chian, 2019), and integrated resort settings (Ahn & Back, 2019). According to earlier research (Sengupta & Dev, 2013), intrinsic motivation elements that increase one's inclination to stay are significantly related to that person's intention to remain in the organization. Additionally, psychological ownership has been demonstrated as a strong predictor of work engagement in the literature (Pathak & Srivastava, 2017). As a result, by following Ryan and Deci's (2000b) suggestion, the self-determination theory was broadened to understand how psychological ownership affects employee engagement and the intention to stay.

## Employee Engagement

Employee engagement is the condition in which employees' involvement in their assigned work on a physical, cognitive, and emotional level assures that they dedicate themselves to the goals and objectives of their organization, feel inspired to strive for organizational success and excellence, and have a greater sense of their well-being (Das & Mishra, 2014; Kadiresan, Kamil, et al., 2016). Even though the available literature has provided researchers with numerical antecedents of engagement, it is still unclear (Schaufeli, 2012; Shuck et al., 2015). Therefore, further psychological states of variables are proposed for a better understanding of employee engagement. The reason is due to the psychological and emotional interactions between employees and their employer during employee engagement, which may manifest in the form of positive or negative behaviours an employee displays (Andrew & Sofian, 2012; Ibrahim & Al Falasi, 2014).

According to several researchers, it is crucial to comprehend how motivation theories conceptualize engagement, particularly the psychological needs of self-determination theory (Macey & Schneider, 2008; Meyer & Gagné, 2008; Shuck et al., 2015). This theory explores the underlying mechanisms of employee engagement, which help in making linkages between its antecedents and outcomes. By Deci and Ryan's (1985) and Ryan and Deci's (2000b) recommendations, this research uses the self-determination theory to examine employee engagement within the more established motivational framework (Deci & Ryan, 1985a; Ryan & Deci, 2000b).

## Psychological Ownership

According to Pierce, Rubenfeld, and Morgan (1991), ownership is characterized by the right to own a portion of the owned objects and the ability to make choices that affect the target. Prior scholars have proposed that financial ownership like profit-sharing (Florkowski, 1989) and employee stock ownership plans (Buchko, 1992) could positively affect an organization's productivity, quality, absenteeism, and turnover and emphasize a strong relationship between employee attitudes that have optimistic consequences for the employee's contribution to the organization (Buchko, 1992; Divya & Srinivasan, 2014; Florkowski, 1989). Ownership does not normally foster financial ownership in an employee, but it does foster psychological ownership in the relationship between the employee and the employer.

An organisation can benefit from psychological ownership because it makes employees feel accountable for their jobs (Olckers & Du Plessis, 2015). This includes employee involvement in decision-making, organizational commitment, interpersonal trust and support in the workplace or working relationships, knowledge sharing, role behaviours, job satisfaction, and the intention to stay (Divya & Srinivasan, 2014).

## THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESES

The proposed model is graphically illustrated in Figure 1.

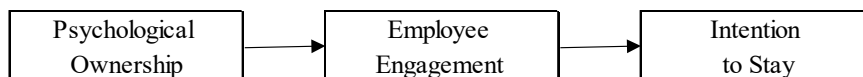


Figure 1. Theoretical model

### Psychological ownership and employee engagement

Based on self-determination theory, the degree to which someone feels a sense of belonging (psychological ownership) determines how much relatedness they need. Psychological ownership may lead employees to devote themselves to and take responsibility for work-related matters as well as engage in territorial behaviour intended to maintain and protect what they believe belongs to them (Brown et al., 2014; Rosli & Hassim, 2017; Ryan & Deci, 2000a). Employees who have acquired psychological ownership of the organization will see themselves as "owners", and their belongings will become a part of their self-concept, resulting in positive sentiments toward the organization (Lu, Liu, & Zhao, 2017). Employees' psychological ownership will have favourable behavioural and attitudinal effects, which will augment job satisfaction, dedication, and the intention to remain with the organization (Avey et al., 2009; Divya & Srinivasan, 2014; Olckers, 2013; Olckers & Enslin, 2016). By simply improving employees' feelings of ownership, organizations can benefit from increased employee engagement, decreased attribution, and enhanced financial performance (Pathak & Srivastava, 2017). In light of this, the first hypothesis is as follows:

*H1: Psychological ownership is positive and significantly impacts employee engagement.*

### Employee Engagement and Intention to Stay

Since Fernandes and Balu (2018) discovered a connection between employee engagement and an employee's decision to remain in an organization, they stated that employees who are satisfied with their work and their coworkers will enhance their level of engagement and work more effectively to meet and stay with organizational goals. Several research studies have demonstrated a correlation between engaged employees and favourable employee outcomes, including increased job satisfaction (Biswas & Bhatnagar, 2013), improved organizational dedication and performance (Biswas & Bhatnagar, 2013; Markos & Sridevi, 2010), reduced sickness and absenteeism (Schaufeli, Bakker, & Van Rhenen, 2009), decreased turnover intention (Imam, Shah, & Raza, 2013), and increased intention to stay (Fernandes, 2018). In light of numerous studies that have examined the positive impacts of engagement on productivity, individual and organizational

performance, and a decrease in the intention to leave the organization (Ashraf, Mangi, & Laghari, 2020), additional, strong evidence also supports the idea that fostering organizational retention depends on employee engagement (Das, 2020). Therefore, the second hypothesis is as follows:

*H2: Employee engagement is positive and significantly impacts their intention to stay.*

**The Mediation Role of Employee Engagement**

Numerous researchers have become interested in the concept of employee engagement and have started to look at how it might serve as a mediator in the interaction between various antecedents and outcome variables. The majority of scholars have used engagement as a mediator between antecedents (e.g., empowerment, motivation-enhancing practices, organizational image, promotion, psychological contact, recognition) and consequences (e.g., commitment, employee wellbeing, performance, intention to stay) (Dhir & Shukla, 2019; Ghosh, Rai, Chauhan, Baranwal, & Srivastava, 2016; Kim, Han, & Park, 2019; Rahman, Björk, & Ravald, 2020; Shah & Beh, 2016; Sheehan, Tham, Holland, & Cooper, 2019). According to the current study, psychological ownership influences employee engagement, which increases the intention to stay. Baron and Kenny (1986, p. 1178) claim that “one must demonstrate strong relations between the predictor and the mediating variable, and the mediating variable and some distal endogenous or criterion variable.” By Hair, Black, Babin, and Anderson (2018), mediation occurs when an independent variable’s effects work through the mediating variable that aims to predict the dependent variable. Thus, the third hypothesis is as follows:

*H3: Employee engagement mediates the relationship between psychological ownership and the intention to stay.*

**METHODOLOGY**

The following sections provide details regarding the research methodology.

**Research Design**

This study aims to examine the relationship between psychological ownership and employee engagement, in addition to the relationship between employee engagement and the intention to stay. Further, this study investigated the mediating effect of employee engagement on psychological ownership and the intention to stay. A quantitative approach was chosen because it allows for empirical testing of the link between the variables and because the method is simple to use and generalize.

**Population and Sample Size**

This survey’s targeted respondents were Malaysian academics working at Malaysian research universities. A total of 450 questionnaires were distributed. After three months, a total of 332 were returned. Due to the statistical inconsistency of three sets of questionnaires, only 329 valid questionnaires (a response rate of 73.11%) were processed further for analysis using PLS-SEM to test the overall construct of the research model.

**Measurement**

A structured questionnaire that comprised four sections was used to collect the data for this study. Respondents were first provided with information about their demographic profile (Section A), followed by information on study variables (Section B to Section D). Table 1 on the following page shows the sequence of the survey questionnaire and the number of measurement items. All the items were scored on a five-point Likert scale, ranging from 1 being strongly disagree to 5 being strongly agree.

Table 1. Constructs and Number of Measurement Items

Section	Constructs	Number of measurement items	Sources
A	Demographic Profile	7	Self-construct
B	Psychological Ownership	7	Adapted from the scale developed by Avey and Avolio (2007).
C	Employee Engagement	12	Adopted from UWES (Schaufeli, Bakker, & Salanova, 2006).
D	Intention to Stay	4	Adapted from the intent-to-stay scale developed by Shanker (2014).
	Total	30	

**RESULTS AND DISCUSSION**

The SPSS software was used to convert the respondents’ demographic profiles into frequencies and percentages. Among the 329 respondents, the data collected revealed that there were more females (n = 212, 64.44%) than males (n =

117, 35.56%) in the population survey. The majority of respondents (n = 170, 51.67%) were between the ages of 28 and 38, 270 were married (82.07%), 249 were Malay (75.68%), 267 respondents had a PhD or doctorate holder (81.16%), and 166 respondents were senior lecturers or assistant professors (50.46%). In terms of the period of employment, more than half of the respondents (55.32%) have worked at their universities for 10 years or longer. See Table 2 for comprehensive demographic profiles of the respondents and further information.

Table 2. Demographic Profile (n=329)

Demographic		Frequency	Percentage (%)
Gender	Male	117	35.56
	Female	212	64.44
Age (years)	28-38	170	51.67
	39-54	118	35.87
	55-67	41	12.46
Marital Status	Single	52	15.81
	Married	270	82.07
	Other	7	2.13
Ethnicity	Malay	249	75.68
	Chinese	64	19.45
	Indian	10	3.04
	Other	6	1.82
Education	PhD holders/ Doctorate	267	81.16
	Master's Degree	50	15.20
	Other	12	3.65
Position	Lecturer	45	13.68
	Senior Lecture/ Assistant Professor	166	50.46
	Associate Professor	59	17.93
	Professor	59	17.93
Period of Employment	1-3 years	65	19.76
	4-9 years	82	24.92
	≥ 10 years	182	55.32

### Measurement Model

According to the recommendations of Hair et al. (2019) and Ramayah et al. (2018), the measurement model was evaluated to determine the reliability and validity of the measurement items. After the measurement models' reliability and validity have been validated, the next step is to run the structural model to test the hypothesis using PLS-SEM. The indicator loadings, average variance extracted (AVE), and composite reliability (CR) of the measurement model were evaluated. According to Hair et al. (2017), indicators with outer loading values equal to and greater than 0.7, 0.6, 0.5, or 0.4 are sufficient to support CR and AVE if other items have high loading scores. The values of indicator loadings should be  $\geq 0.5$  (Hair et al., 2018, 2017), the CR should be  $\geq 0.7$  (Hair et al., 2017; Henseler et al., 2009; Sekaran & Bougie, 2016), and the AVE should be  $\geq 0.5$  (Hair et al., 2017; Henseler et al., 2009; Mayfield & Mayfield, 2012). As shown in Table 3, all of the indicator loadings readings exceeded the 0.5 cut-off point, except the intention to stay: IS4 (0.171) was excluded.

The CR values of all reflective constructs ranged from 0.928 to 0.953, and the AVE values ranged from 0.590 to 0.810 (refer to Table 3). As the CRs are all higher than 0.7, the measurements in this study were found to be reliable and consistent. The AVE findings for convergent validity were declared satisfactory as the AVEs are all higher than 0.5.

Table 3. Measurement model reliability analysis

Construct	Items	Loadings	CR	AVE
Employee Engagement	EE1	0.775	0.945	0.590
	EE2	0.702		
	EE3	0.611		
	EE4	0.729		
	EE5	0.848		

Table 3. (cont.)

Construct	Items	Loadings	CR	AVE
	EE6	0.742		
	EE7	0.712		
	EE8	0.868		
	EE9	0.882		
	EE10	0.886		
	EE11	0.799		
	EE12	0.595		
Intention to Stay	IS1	0.912	0.928	0.810
	IS2	0.865		
	IS3	0.922		
	IS4	deleted		
Psychological Ownership	PO1	0.841	0.953	0.744
	PO2	0.861		
	PO3	0.850		
	PO4	0.863		
	PO5	0.875		
	PO6	0.855		
	PO7	0.890		

Note: IS4 was deleted due to low loadings

Next, the HTMT criterion proposed by Henseler et al. (2015) and updated by Franke and Sarstedt (2019) was used to assess the discriminant validity. The threshold values suggested in the literature are 0.90 (Gold, Malhotra, & Segars, 2001; Teo, Srivastava, & Jiang, 2008) if the path model comprises constructs that are conceptually comparable, or a lower and consequently more conservative cutoff value of 0.85 is advised when the constructs are conceptually more dissimilar (Clark & Watson, 1995; Kline, 2011). As revealed in Table 4, all of the HTMT values were lower than the stricter criterion of  $\leq 0.85$ , implying that the measurement items are both valid and reliable.

Table 4. HTMT Criterion

	1	2	3
1. Employee Engagement			
2. Intention to Stay	0.585		
3. Psychological Ownership	0.757	0.778	

**Structural Model**

According to Hair et al. (2017), there are six steps to accessing the structural model using PLS-SEM, as follows:

First, the variance inflation factor (VIF) was studied to ensure that no lateral collinearity issue existed (Hair et al., 2017). Table 5 shows that the VIF values were less than 5, indicating that collinearity is not a problem in the study and that the data can proceed with the analysis (Hair et al., 2017).

Table 5. Lateral Collinearity Assessment

Construct	Employee Engagement (VIF)	Intention to Stay (VIF)
Employee Engagement		1.000
Intention to Stay		
Psychological Ownership	2.834	

Second, using the SmartPLS bootstrapping option, the significance of path coefficients in the structural model was measured using t-values, p-values, and confidence intervals (95% bias-corrected and accelerated). According to the findings in Table 6, psychological ownership has a positive and significant relationship with employee engagement ( $\beta = 0.495, p < 0.01$ ). As a consequence, hypothesis 1 was supported. Employee engagement and intention to stay ( $\beta = 0.540, p < 0.01$ ) were also revealed to have a positive and significant relationship. As a result, hypothesis 2 was supported.

Table 6. Path Coefficients of the Direct Relationship

	Relationship	Std Beta	Std Error	t- value	P Values	Decision
H1	Psychological Ownership → Employee Engagement	0.495	0.080	6.187**	0.000	Supported
H2	Employee Engagement → Intention to Stay	0.540	0.043	12.485**	0.000	Supported

\*\* p < 0.01; \* p < 0.05

Third, the coefficient of determination ( $R^2$  value) is used to assess the predictive accuracy of structural models (Hair et al., 2017). The  $R^2$  can also be viewed as the combined effects of exogenous variables on the endogenous variable(s) (Hair et al., 2017). Table 7 illustrates that the  $R^2$  of employee engagement was 0.566, meaning that its predictor (psychological ownership) can explain 56.6% of the variance in employee engagement. The  $R^2$  value for the relationship between employee engagement and intention to stay was 0.292, indicating that employee engagement explained 29.2% of the variance in intention to stay. Employee engagement (0.566) and intention to stay (0.292) had  $R^2$  values greater than Cohen (1988)'s recommended value of 0.26, indicating a substantial model, respectively.

Table 3. The determination of co-efficient ( $R^2$ ) and predictive relevance ( $Q^2$ )

Construct	Co-efficient of determination $R^2$	Predictive Relevance $Q^2$
Employee Engagement	0.566	0.285
Intention to Stay	0.292	0.211

Fourth, the effect size ( $f^2$ ) is the next measure of the  $R^2$  change. Cohen's  $f^2$  (Cohen, 1988) was used to determine the effect size of the construct. Similarly, the effect size ( $f^2$ ) values greater than 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively (Cohen, 1988). According to Table 8, psychological ownership (0.205) has a medium effect on creating the  $R^2$  for employee engagement, and employee engagement (0.412) has a large effect on creating the  $R^2$  for intention to stay.

Table 4. The determination of effect size ( $f^2$ )

Relationships	$f^2$	Effect Size
Employee Engagement → Intention to Stay	0.412	Large
Psychological Ownership → Employee Engagement	0.205	Medium

Fifth, the blindfolding procedure was employed to evaluate the predictive relevance ( $Q^2$ ) of the model. According to Chin (2010), a  $Q^2$  value greater than zero suggests that the model has predictive relevance for a specific endogenous construct, but a  $Q^2$  value of zero or less suggests that the model does not have predictive relevance. Table 7 shows that the model is sufficiently predictive of relevance because all of the two  $Q^2$  values for employee engagement ( $Q^2 = 0.285$ ) and intention to stay ( $Q^2 = 0.211$ ) are greater than 0.

Following that, the structural model was then evaluated in the presence of a mediator, specifically employee engagement. According to Table 9, the indirect effect ( $\beta = 0.267$ ) was significant, with t-values of 5.111. The 95% bootstrapped confidence interval bias was calculated and revealed that the indirect effects at 95% Boot CI Bias Corrected [LL = 0.167, UL = 0.374], do not straddle a 0 in between, demonstrating there is mediation (Hair et al., 2017; Preacher & Hayes, 2004, 2008). As a result, employee engagement was found to be a mediator between psychological ownership and the intention to stay. Therefore, hypothesis 3 was supported.

Table 5. Indirect effect report

No	Relationship	Std. Beta	Std. Error	t-value	P Values	Confidence Interval (BC)		Decision
						LL	UL	
H3	Psychological Ownership → Employee Engagement → Intention to Stay	0.267	0.052	5.111	0.000	0.167	0.374	Supported

Note:  $p < 0.05$  (based on a two-tailed test with 5000 bootstrapping), BC=Bias Corrected, UL=Upper Level, LL=Lower Level

## DISCUSSION

According to the first hypothesis of this study, psychological ownership and employee engagement have a significant positive relationship. This outcome is consistent with the self-determination theory, which assumes that one's basic psychological needs for relatedness or belongingness stimulate optimal motivation and engender a sense of psychological energy (Peters, Calvo, & Ryan, 2018; Rigby & Ryan, 2018). When academics have a sense of psychological ownership over their work or their university, it leads to higher levels of employee engagement (Brown et al., 2014; Lee, Makri, & Scandura, 2019). In this study, the majority (80.2%) of the respondents possessed four or more years of working experience. Furthermore, senior academics are expected to be held more accountable for increasing research output by supervising research students and publishing in academic journals, as well as teaching, which necessitates intimate knowledge of the field and adequate time investment (Blume & Candela, 2018; Md-Sidin, Sambasivan, & Muniandy, 2010). This means that Malaysian academics working at Malaysian research universities possess a sense of psychological ownership, which contributes to employee engagement.

The second hypothesis likewise suggests that employee engagement has a significant impact on Malaysian academics' intentions to stay. This result is consistent with the majority of the literature across a variety of study contexts, which indicates that the higher the value of employee engagement, the greater the employee's intention to stay in an organization (Book et al., 2019; Fernandes & Balu, 2018; Kim & Gatling, 2018; Sánchez-Cardona, Vera, & Marrero-Centeno, 2021; Sheehan et al., 2019; Tshukudu, 2020). According to the current findings, more than half (55.32%) of the academics who took part in this study have worked for 10 years or more and are more involved in their profession than those who have worked for less than 10 years. These results imply that academics who have worked in research universities for 10 years or longer tend to be more engaged at work, which may explain why they continue to work in research universities.

Finally, since psychological ownership demonstrated a significant direct relationship with employee engagement, as expected, employee engagement was also found to be a significant mediator in the relationship between psychological ownership and intention to stay. Similar to the preceding findings by Lu et al. (2017), their study showed that the degree to which employees experienced psychological ownership was negatively related to employees' intention to leave, and the relationship was mediated by the degree of territorial behaviour employees engaged in. This further confirmed that in the present context, when academics possess a sense of ownership, they are typically given their full commitment, are involved in their job, and are motivated to perform better for organizational success (Sidik, Hamid, & Ibrahim, 2017). As expected, providing academics with a feeling of psychological ownership that meets their innate psychological needs implies a responsibility towards their work role and engagement (Han et al., 2019). Moreover, a high level of employee engagement reflects a source of motivation that might elicit positive feelings towards the organization and a desire to stay in the organization (Biswas & Bhatnagar, 2013; Tshukudu, 2020). Hence, it was concluded that psychological ownership had indirect effects on the intention to stay through employee engagement.

### Theoretical Implications

In terms of theoretical implications, this study was based on self-determination theory, which examines the extent to which a person's innate psychological needs are met (Ryan & Deci, 2000b). According to the findings, underlying innate psychological needs for psychological ownership affect employee engagement. Moreover, through employee engagement as a mediator, innate psychological needs for psychological ownership also have a significant indirect effect on the intention to stay. Academics who have higher levels of psychological ownership and employee engagement are more likely to say they have a higher level of intention to stay than those who do not. Likewise, academics with higher degrees of psychological ownership are also more likely to have higher levels of employee engagement, which in turn increases their intention to stay with the university.

### Practical Implications

Aside from theoretical contributions for academicians and researchers, there are several practical implications for practitioners and policymakers. According to the study's findings, psychological ownership has a significant positive effect on employee engagement. Psychological ownership also has a significant positive indirect effect on the intention to stay through employee engagement as a mediator. When academics are highly motivated and feel a sense of ownership, it is thought that this will have an impact on the organization's success. Over time, they tend to stay engaged and achieve higher academic performance (Wang et al., 2019). Therefore, the administrators who are in charge of hiring academics should select candidates with the right attitude who are likely to have higher degrees of psychological ownership in addition to their qualifications. Besides, the deans and heads of departments in universities should also strive to provide an environment that allows academics to engage in decision-making. To be held accountable, ownership must be assigned to an individual, which in turn affects one's intention to stay in the organization.

### Limitations of Study and Future Research

The current study has numerous limitations that offer researchers room for more investigation in the future. The scope of this study, however, is constrained because it only includes academics employed at Malaysian research universities. This limitation is challenging to overcome because of its context-specific nature. Hence, it is highly recommended that future studies include private universities in their survey, as this would provide insights into academics' intentions to stay in a much broader context. Another weakness of this study is the absence of qualitative information to support the



quantitative findings. Although the findings of this study supported the direct effects and mediation hypotheses, the respondents' ability and opportunity to make comments were constrained by solely relying on questionnaires. Another weakness is the possibility of inaccurate reporting of views, as some people may have imagined they had an exaggerated response of unhappiness and an intention to leave the research university. As a result, future research may also consider including a qualitative study. In-depth descriptions of academics' experiences and innate psychological needs written in their own words will help explore deeper into their intention to stay. In addition, adding more variables to the innate psychological needs for competence, autonomy, and relatedness would help in better understanding the academics' intention to stay.

## CONCLUSION

According to the results of this study, psychological ownership has a positive and direct impact on employee engagement. Employee engagement also demonstrated positive and direct impacts on the intention to stay. Additionally, psychological ownership also has an indirect effect on the intention to stay through employee engagement as the mediator. Academicians, the government, policymakers, and university administrators will all benefit from the theoretical and practical contributions gained by this study. The study also made recommendations to the university administrators, government, and policymakers that psychological ownership and employee engagement have significant effects on increasing academics' intention to stay in Malaysian research universities.

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## CONFLICT OF INTEREST

The author(s), as noted, certify that they have no affiliations with or involvement in any organization or agency with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, jobs, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, expertise, or beliefs) in the subject matter or materials addressed in this manuscript.

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