

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

Yean Sze Ong , Noor Fareen Abdul Rahim , Haniruzila Md. Hanifah ,  
Junaimah Jauhar 

*Graduate School of Business, Universiti Sains Malaysia, Malaysia*

*E-mail: [ong\\_shye@yahoo.com](mailto:ong_shye@yahoo.com)*

Received June 2022; accepted January 2023

## Abstract

The purpose of this paper is to examine the influence of job autonomy on the intention to stay among Malaysian academics in the context of Malaysian research universities. A model was developed based on the self-determination theory to identify how job autonomy can enhance the intention to stay through employee engagement. Data was collected from 329 Malaysian academics from five Malaysian research universities via an online survey questionnaire. The collected data was then analyzed using Smart PLS. Findings indicate that job autonomy has a significant positive impact on employee engagement. Employee engagement also has a significant positive relationship with the intention to stay. Furthermore, job autonomy was also found to have a significant indirect effect on the intention to stay via employee engagement as a mediator. The theoretical contribution of this paper contributes to developing an understanding of the linkage between job autonomy and intention to stay as well as providing insight about the mediation of employee engagement, highlighting the novelty of this conceptual framework. This study also makes significant practical contributions to both academics and policy makers on the vital roles of job autonomy and employee engagement, thus enhancing the intention to stay among academics. Finally, the limitations of the study were explained and recommendations for future research were also presented.

## Research paper

**Keywords:** Job autonomy; Employee Engagement; Intention to stay; Self-Determination Theory; Malaysian Research Universities

**Reference** to this paper should be made as follows: Ong, Y. S., Rahim, N. F. A., Hanifah, H. M., & Jauhar, J. (2023). The Influence of Job Autonomy on Intention to Stay among Academics Employed at Malaysian Research Universities: The Mediating Role of Employee Engagement. *Journal of Entrepreneurship, Business and Economics*, 11(1), 1–41.

## **Introduction**

Understanding factors that influence an employee's intention to stay is essential for an organization. However, the intention to leave among employees has captured the interest of researchers for a long time (Awang et al., 2015; Mahomed & Rothmann, 2020; Nair, Mee, & Cheik, 2016; Ramasamy & Abudullah, 2020; Rifin & Danaee, 2022). Previous researchers have attempted to measure the intention to stay on the assumption that it is a more positive construct than the intention to leave and have considered that the same construct is the best predictor of staff retention (Alemu & Pykhtina, 2020; Ghosh, Satyawadi, Joshi, & Shadman, 2013; Harun & Ahmad, 2022; Nancarrow, Bradbury, Pit, & Ariss, 2014). However, the factors that influence the employees' intention to leave the job do not necessarily influence their intention to stay on the job (Bello & Steil, 2020; Chamchan & Kittisuksathit, 2019; Naalu, 2021).

Despite the fact that the importance of enhancing the intention to stay among academics in research universities has been acknowledged as a management challenge that higher education institutions should focus on, studies show that there is limited empirical research to explain this problem, let alone measures that can be utilized to identify and limit academics' turnover (Anees, Heidler, Cavaliere, & Nordin, 2021; Awang et al., 2015; Ismail & Noor, 2016; Theron, Barkhuizen, & Du Plessis, 2014; Yunus & Pang, 2015a, 2015b). Various studies have revealed that the decrease in the number of academics may be due to a high turnover trend among academics who believe they are treated unfairly in terms of rewards and workload (Albadi, Hussain, & Ahmad, 2017; Anees et al., 2021; Azman, Omar, Yunus, & Zain, 2016; Batrancea et al., 2019, 2022; Kassim et al., 2018; Khan, Nawaz, Khan, Khan,

& Yar, 2013; Ramasamy & Abdullah, 2017; Yunus & Pang, 2015a), high level of job stress (Anees et al., 2021; Aziz & Ramli, 2010; Makhbul & Khairuddin, 2013; Nair et al., 2016), lack of affective commitment and job satisfaction (Al-khrabsheh, Abo-murad, & Bourini, 2018; Khan et al., 2014; Khan et al., 2014; Noor, 2011; Pieters, Zyl, & Nel, 2022; Robyn & Du Preez, 2013), low level of employee engagement, insufficient or absence of recognition, and poor management and leadership (Asaari, Dwivedi, Lawton, & Desa, 2016; Ng'ethe, Iravo, & Namusonge, 2012; Robyn & Du Preez, 2013; Yimer, Nega, & Ganfure, 2017), burnout (Boamah, Hamadi, Havaei, Smith, & Webb, 2022), compulsory citizenship behaviour (Eivazzadeh & Nadiri, 2022), poor organisational culture (Manogharan, Thivaharan, & Rahman, 2018; Mashile, Munyeka, & Ndlovu, 2021). Although most prior studies have identified the reasons why academics leave their positions and suggested strategies to reduce turnover, little attention has been paid to why Malaysian academics' intention to stay with a university. To address this issue, this study will be focusing on the factors that can attract Malaysian academics to stay in Malaysian research universities and discourage them from leaving.

In a world challenged by global talent shortages, understanding the factors that influence academics' intention to stay with an institution is critical. There is an argument that there is a strong direct relationship between high levels of engagement and the intention to stay in an organization (Bin & Penetrante, 2022; Book, Gatling, & Kim, 2019; Fernandes & Balu, 2018; Kim & Gatling, 2018). Also, some researchers argue that employees with higher turnover intentions tend to have lower engagement levels (Baran & Sypniewska, 2020; Cao & Chen, 2021; Isa & Ibrahim, 2014; Su & Ng, 2018). Despite the increasing recognition in the industry and the call for research regarding

engagement (Beraldin, Danese, & Romano, 2022; Kim & Gatling, 2018), there are few empirical studies focusing on employee engagement in research universities. The conceptualization of employee engagement for academics in research universities through a literature review was limited and had not been adequately measured. Thus, this study intends to fill the gap by exploring the impact of employee engagement on the intention to stay among academics employed at Malaysian research universities.

Despite the fact that there are many potential antecedents to employee engagement, many researchers have suggested intrinsic motivation may be a stronger predictor of employee engagement than external motivation (Chinara & Bentein, 2016; Crome, Meyer, Bosanquet, & Hughes, 2019; Heyns, McCallaghan, & Wet, 2022; Meyer, 2017; Meyer & Gagné, 2008; Parfyonova et al., 2019). The most ideal forms of motivation are seen to come from self-determination theory rather than extrinsic or external motivation (Shuck, Peyton Roberts, & Zigarmi, 2018; Whipp & Salin, 2018). Following the self-determination theory, intrinsic motivation suggests optimal human functioning in terms of engagement, well-being, attitudes, and behaviour arises from the satisfaction of the basic innate psychological needs of autonomy (Deci & Ryan, 2000; Deci & Ryan, 1985; Ryan & Deci, 2000b). Likewise, Meyer and Gagné (2008) called for more research to identify and explain the innate psychological needs of autonomy that lead to higher levels of engagement. In-depth studies with regard to the innate psychological needs of autonomy to enhance employee engagement among academics at Malaysian research universities were found to be lacking (Haivas, Hofmans, & Pepermans, 2013; Tauhed, Rasdi, Samah, & Ibrahim, 2018).

Consequently, the objective of this study is to examine the relationship between perceptions of academics regarding job autonomy and employee engagement. This study also aims to examine the impact of employee engagement and the intention to stay. Furthermore, this study examines the mediating role of job autonomy and employee engagement. This study is designed to answer the following questions: (i) Is there a significant relationship between job autonomy and employee engagement? (ii) To what extent does employee engagement impact on the intention to stay among academics in Malaysian research universities? (iii) Does employee engagement mediate the relationship between job autonomy and the intention to stay among academics in Malaysian research universities?

The current study's findings are expected to contribute to the self-determination theory in academics' intention to stay study. The researcher will revisit the self-determination theory and adapt it to the current study. It is important to note that the goal of the current study is to investigate the relationship between innate psychological needs for job autonomy (independent variables) and employee engagement, as well as the mediating effect of employee engagement between the independent variables and intention to stay (dependent variable). In terms of practical contribution, this research sheds light on enhancing the intention to stay among academics. By conducting this research, researchers, learning institutions, policy makers, and implementers will gain a better understanding of the intention to stay, more specifically the innate psychological needs of job autonomy that constitute employee engagement and the intention to stay.

This paper is organized as follows: Section two reviews past studies in relation to the intention to stay as well as the development of theoretical

framework and hypotheses. Section three presents the methodology used. Section four elaborates on the results and discussion. Finally, the conclusion is presented in section five.

## **Literature Review**

This section reviews and analyzes past literature regarding intention to stay, employee engagement, and job autonomy.

### ***Intention to Stay***

Intention to stay is defined as an employee's intentional and purposeful willingness to remain employed (Tett & Meyer, 1993). A review of the literature has shown that the intention to stay is not a popular variable for research as compared to the intention to leave (Zin, 2017). Some scholars now believe that it is not necessarily valid to measure intention to stay by asking questions about intention to leave (Akhtar, Salleh, & Mehmood, 2017) and that they 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 factors that might lead to employee turnover can usually explain why employees leave the job, but they cannot explain the reasons behind why employees decide to stay (Akhtar et al., 2018; Sanjeevkumar, 2012).

Prior studies have found various predictors of intention to stay, which can be categorized as personal-related, work-related, organizational-related, and external environment-related (Bang, 2015; Darnell, Brockmeier, Gibson, Green, & Archibald, 2020; Pathak & Srivastava, 2017; Woon, Tan, & Nasur-

din, 2017; Zin, Othman, & Pangil, 2012). Research based on self-determination theory has argued that innate psychological needs can be key predictors and empirical research has shown this to be the case for meaningful work (Martela & Riekkki, 2018), meaningful in life (Martela, Ryan, & Steger, 2018), integrated resort setting (Ahn & Back, 2019), and students' motivational process (Wang, Liu, Kee, & Chian, 2019). Previous research has indicated that one's intention to stay was significantly related to intrinsic motivation factors that enhance one's willingness to stay in the organization (Sengupta & Dev, 2013). Among these predictors, job autonomy is regarded as vital in the prediction of the intention to stay (Githinji & Gachunga, 2017; Tambi, Muslim, Yusof, & Tahir, 2017).

Numerous studies have shown that demotivating employees, which leads to job dissatisfaction, further burnout, and ultimately causes disengagement, can relate to the intention of leaving an organization (Hong, Hao, Kumar, Ramendran, & Kadiresan, 2012; Shams & Niazi, 2018). Literature has also shown that job autonomy is a significant predictor of work engagement (Wicaksono & Pusparini, 2022). Therefore, by following the suggestion by Ryan and Deci (2000b), the theory was widened and deepened understanding of how job autonomy influences the intention to stay through employee engagement. The following section will be used to discuss the antecedents of employee engagement and job autonomy.

### ***Employee Engagement***

According to Kahn (1990), when employees are engaged, they are emotionally connected, cognitively vigilant, and physically involved. Employee engagement is defined as a psychological involvement that has two

critical components: (1) attention (which refers to cognitive availability and the duration or length of time an individual spends thinking and concentrating about a role); and (2) absorption (which means being engrossed as well as involved in-role performance and refers to the intensity of an individual's attention on a role) (Rothbard, 2001). Although the existing literature has given researchers a number of antecedents of engagement, it remains unclear and it is suggested that more antecedents of psychological state be identified to improve the knowledge of employee engagement (Schaufeli, 2012; Shuck, Ziggarmi, & Owen, 2015; Salamzadeh & Kawamorita, 2017). This is due to the fact that employee engagement entails psychological and emotional interaction between employees and their employer, which can be translated into positive or negative actions that employees show at work (Andrew & Sofian, 2012; Ibrahim & Al Falasi, 2014).

Several scholars have highlighted the importance of understanding the conceptualization of engagement through motivation theories, in particular, the psychological needs of self-determination theory (Macey & Schneider, 2008; Meyer & Gagné, 2008; Shuck et al., 2015), which discusses the underlying mechanisms of employee engagement that helps in making connections between its antecedents and consequences. As suggested by Deci and Ryan (1985) and Ryan and Deci (2000b), this study investigates employee engagement within the more established motivational framework through the lens of self-determination theory (Deci & Ryan, 1985a; Ryan & Deci, 2000b).

### ***Job Autonomy***

Job autonomy denotes how much an individual possesses extensive freedom, independence, and choice when it comes to scheduling, determining



the procedures, and carrying out the work assigned to them (Hackman & Oldham, 1975). Ghosh, Satyawadi, Joshi, and Shadman (2013) revealed that many employees value autonomy because it allows them to have self-determining action and thought at work, control the bounds of their work, and have the freedom to do their best as well as perform a task that allows them to feel like they are contributing to the organization. According to Mas-Machuca, Berbegal-Mirabent, and Alegre (2016), job autonomy will increase employee motivation and productivity. This is because job autonomy is viewed as a motivating strategy and practice that tries to improve performance by increasing the possibilities for involvement and participation in decision-making (Nasiri, 2017).

In addition, increased job autonomy has been shown to be related to a decrease in stress and increased productivity for employees (Mehta, Kurbetti, & Dhankhar, 2014). For instance, employees who have autonomy in their job will likely be more committed to their organization and, in return, will reduce their intention to leave the organization (Rathakrishnan, Imm, & Kok, 2016). However, Zhang, Jex, Peng, and Wang (2017) point out that past research has also shown that job autonomy may not always be a beneficial resource. This is because several studies have found that employees are not motivated because they feel they have no control over what is happening around them (MacLennan & Miao, 2017).

Despite the fact that extensive meta-analytic data demonstrates that job autonomy is positively associated with a wide range of important consequences such as organizational commitment and work performance, some other meta-analyses reveal that there is no relationship between job autonomy and turnover intention, with job autonomy having less influence on reducing

employee turnover intention and, as a result, actual turnover (Dysvik & Kuvaas, 2013). In addition, increasing job autonomy may have negative consequences and temporarily lower employee well-being since it may lead to additional work-related obligations and duties that necessitate self-regulatory effort and adversely affect workplace well-being (Zacher, Schmitt, Jimmieson, & Rudolph, 2018). Therefore, more research is needed to better understand the consequences of increased job autonomy.

### **Theoretical Framework and Hypotheses**

The proposed model is graphically illustrated in Figure 1.



**Figure 1.** Theoretical model

#### ***Job Autonomy and Employee Engagement***

According to self-determination theory, the need for autonomy is the degree to which an individual believes their activities and actions mirror basic beliefs, feels self-determined versus controlled (job autonomy), and that involvement is freely chosen (Deci & Ryan, 2000; Meyer, Gagné, & Parfyonova, 2010; Shuck et al., 2015). Employees with high job autonomy may be more likely to engage in doing their assigned work and, thus, may feel responsible for the outcomes of their own work (Zhang et al., 2017). From a practical perspective, Malinowska et al. (2018) suggest that giving employees more job autonomy may increase their intrinsic motivation, thus leading to more energetic, enthusiastic, and dedicated work. There are many

studies that highlight the importance of job autonomy in work engagement (Bakker & Oerlemans, 2019; Dorssen-boog, Jong, Veld, & Vuuren, 2020; Rigby & Ryan, 2018). As a result, the following hypothesis is proposed:

H1: Job autonomy has a positive and significant effect on employee engagement.

### ***Employee Engagement and Intention to Stay***

According to Fernandes and Balu (2018), employees who are content with their jobs and their colleagues will increase the level of engagement and will work more effectively to achieve organizational goals. They also found that employees' levels of engagement are related to their intention to stay in an organization. Numerous studies have linked engaged employees to favourable employee outcomes, such as decreased sickness and absenteeism (Schaufeli, Bakker, & Van Rhenen, 2009), enhanced organizational dedication and performance (Biswas & Bhatnagar, 2013; Markos & Sridevi, 2010), increased job satisfaction (Biswas & Bhatnagar, 2013), reduced turnover intention (Imam, Shah, & Raza, 2013), and increased intention to stay (Fernandes, 2018). Given that a large number of studies have focused on the significant and positive impact of engagement on productivity, both employee and organizational performance, as well as negative effects on turnover intention (Ashraf, Mangi, & Laghari, 2020). Also, there is ample evidence that employee engagement plays a central role in promoting organizational retention (Das, 2020). As a result, the following hypothesis is proposed:

H2: Employee engagement has a positive and significant effect on the intention to stay.

### ***The Mediation Role of Employee Engagement***

The concept of employee engagement has drawn the attention of numerous researchers to investigate the role of employee engagement in mediating the relationship between a variety of antecedents and outcome variables (Al-Tit & Hunitie, 2015; Alfes, Shantz, Truss, & Soane, 2013; Alias, Noor, & Hassan, 2014; Andrew & Sofian, 2012; Memon, Salleh, Baharom, & Harun, 2014; Saks, 2006). Engagement has been employed by the majority of scholars as a mediator between antecedents (e.g., recognition, promotion, organizational image, psychological contact, motivation enhancing practices, empowerment) and consequences (e.g., commitment, performance, turnover intention, employee wellbeing) (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 Hair, Black, Babin, and Anderson (2018), mediation happens when the effects of an independent variable “work through” an intervening variable (the mediating variable) that attempts to predict the dependent variable. Baron and Kenny (1986, p. 1178) stated that “one must demonstrate strong relations between the predictor and the mediating variable, and the mediating variable and some distal endogenous or criterion variable.”

The present study proposes that job autonomy contributes to employee engagement, which will increase the intention to stay. As a result, it is necessary to further explore the mediating role of employee engagement in the connection between job autonomy and the intention to stay, which is what this study sought to explore. Therefore, the following hypotheses are proposed in this study:

H3: Employee engagement mediates the relationship between job autonomy and the intention to stay.

## **Methodology**

### ***Research Design***

The purpose of this study is to scrutinize the factors causing Malaysian academics to stay employed at Malaysian research universities. This study intends to look at the link between job autonomy and employee engagement, as well as employee engagement and the intention to stay. Furthermore, the current study examined the mediating role of employee engagement within job autonomy and intention to stay. Therefore, for the purpose of this study, a quantitative approach was chosen since it helps to empirically test the relationship between the variables and because the method is easy to use and generalize.

In this study, data was collected via an online questionnaire survey. The targeted respondents participating in this survey were Malaysian academics employed at Malaysian research universities. They represent the ranks of the academics, consisting of professors, associate professors, senior lecturers/assistant professors, and lecturers. According to Hair, Black, Babin, and Anderson (2010), the minimum sample size required to perform statistical analyses should be equal to or larger than 10 times the largest number of structural paths directed at any particular latent construct in the structural model. However, according to Krejcie and Morgan (1970), when the population of the sample ranges from 9,000 to 10,000, the appropriate sample size is between 368 and 370. Thus, a sample size of 370 respondents was set. From the distribution of the online questionnaires to 370, a total of 332 replies were

obtained after following up several times. Due to 3 sets of questionnaires being statistically inconsistent, only 329 valid questionnaires were processed further for analysis using Partial Least Squares-Structural Equation Modeling (PLS-SEM) to test the overall construct of the research model.

### **Measurement**

The data for this study was collected using a structured questionnaire that comprised four sections. Respondents were first provided information about their demographic profile (Section A), then the study variables (Section B to Section D). The sequence of the survey questionnaire, as well as the number of measurement items, are shown in Table 1 on the following page. Items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

**Table 1.** Constructs and Number of Measurement Items

<b>Section</b>	<b>Constructs</b>	<b>Number of measurement items</b>	<b>Sources</b>
A	Demographic Profile	7	Self-construct
B	Job Autonomy	8	Adapted from the Job Diagnostic Survey developed by Hackman and Oldham (1975).
C	Employee Engagement	12	Adopted from UWES (Schaufeli, Bakker, & Salanova, 2006).
D	Intention to Stay	4	Adapted from intent-to-stay scale developed by Shanker (2014).
<b>4</b>	<b>Total</b>	<b>31</b>	

### **Results and Discussion**

The demographic profiles of the respondents were computed into frequencies and percentages using the SPSS software. The results of data collection showed that among 329 respondents, the population surveyed contained more females (n = 212, 64.44%) than males (n = 117, 35.56%). The

majority of respondents were between 28 and 38 years old (n = 170, 51.67%), 270 respondents were married (82.07%), 249 respondents were Malay (75.68%), 267 respondents had a PhD/Doctorate holders (81.16%), 166 respondents were senior lecturers or assistant professors (50.46%), and more than half of the respondents (55.32%) had been at their universities for 10 years or more. For more information, see the detailed demographic profiles of the respondents in Table 2.

**Table 2.** Demographic Profiles (n=329)

Demographic Factor		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
Ethnicity	Married	270	82.07
	Other	7	2.13
	Malay	249	75.68
	Chinese	64	19.45
	Indian	10	3.04

**Table 3.** (Continue)

Demographic Factor		Frequency	Percentage (%)
Education	Other	6	1.82
	PhD holders/Doctorate	267	81.16
	Masters 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 Analysis***

The measurement model was evaluated to determine the reliability and validity of the measurement items. An established rule of thumb when assessing indicator reliability is that a construct should explain at least 50% of the variance in each indicator (Hair et al., 2017; Dana et al., 2021, 2022). Since that value squared (0.7082) equals 0.50, this means that an indicator's outer loading should be equal to and greater than 0.708 (Hair et al., 2018, 2017; Salamzadeh et al., 2022). However, Hair et al. (2017) also point out that indicators with outer loadings values equal to and greater than 0.7, 0.6, 0.5, or 0.4 are sufficient if other items have high loadings scores to support CR and AVE. In this study, all of the indicator loadings readings exceeded the 0.6 cut-off point, except two items (IS4 and EE9) were excluded due to low loadings.

Traditionally, internal consistency was measured by Cronbach's alpha. Nevertheless, there is an argument that the Cronbach alpha assumes that all indicators have equal outer loadings on the construct. Cronbach's alpha is also sensitive to the number of items in the construct and tends to miscalculate each indicator's internal consistency reliability (Hair et al., 2017). For that reason, CR was employed to assess the consistency of the measurement items used in this study. Internal consistency was established if the value of CR for each construct was 0.7 or higher (Hair et al., 2017; Henseler et al., 2009; Sekaran & Bougie, 2016). According to the results presented in Table 3, the CR values of all reflective constructs ranged from 0.915 to 0.945, which were all above the cut-off point of 0.7. Thus, the measures in this investigation were found to be reliable and consistent.



Convergent validity is described as “the extent to which a measure (indicators) correlates positively with alternative measures (indicators) of the same construct” (Hair et al., 2017; Henseler et al., 2009). The AVE values of each construct should be at least 0.50 of the constructs or higher in order to prove convergent validity (Hair et al., 2017; Henseler et al., 2009; Mayfield & Mayfield, 2012). The AVE values in this study ranged from 0.574 to 0.810 (refer Table 3), which was higher than the recommended value of 0.5 as suggested by Hair et al. (2017). Thus, the findings obtained for AVE in terms of convergent validity were deemed satisfactory.

**Table 4.** Measurement model reliability analysis

<b>Construct</b>	<b>Items</b>	<b>Loadings</b>	<b>CR</b>	<b>AVE</b>
Employee Engage- ment	EE1	0.783	0.945	0.614
	EE2	0.855		
	EE3	0.748		
	EE4	0.715		
	EE5	0.868		
	EE6	0.882		
	EE7	0.885		
	EE8	0.796		
	EE9	deleted		
	EE10	0.700		
	EE11	0.612		
	EE12	0.728		
Intention to Stay	IS1	0.913	0.928	0.810
	IS2	0.865		
	IS3	0.922		
	IS4	deleted		

Table 5. (Continue)

<b>Construct</b>	<b>Items</b>	<b>Loadings</b>	<b>CR</b>	<b>AVE</b>
Job Autonomy	JA1	0.805	0.915	0.574
	JA2	0.760		
	JA3	0.635		
	JA4	0.700		
	JA5	0.727		
	JA6	0.832		
	JA7	0.829		
	JA8	0.751		

Note: IS4 and EE9 were deleted due to low loadings

***Structural Model: Hypotheses Testing***

After the measurement models’ reliability and validity have been validated, the next step in using PLS-SEM is to assess the structural model results. This involved investigating the structural model’s predictive power as well as testing the hypothetical relationships and mediating effects of the conceptual model as suggested by Hair et al. (2017) and bootstrapping techniques developed by Preacher and Hayes (2008) to estimate the indirect effect of the mediation model. Firstly, the variance inflation factor (VIF) was investigated to make sure that there was no lateral collinearity issue (Hair et al., 2017; Salamzadeh & Kirby, 2017). As shown in Table 4, the VIF values were less than 5, demonstrating that collinearity is not an issue in the study and that the data can continue with the analysis (Hair et al., 2017).

**Table 6.** Lateral Collinearity Assessment

Construct	Employee Engagement (VIF)	Intention to Stay (VIF)
Employee Engagement		1.000
Intention to Stay		
Job Autonomy	1.628	

Secondly, the significance of path coefficients in the structural model was evaluated via t-values, p-values, and the confidence intervals (95% bias-corrected and accelerated) using the SmartPLS 3.0 bootstrapping option. According to the results in Table 5, job autonomy has a positive and significant relationship with employee engagement ( $\beta = 0.145$ ,  $p < 0.01$ ). Thus, hypothesis 1 was supported. The findings also revealed a positive and significant relationship between employee engagement and intention to stay ( $\beta = 0.539$ ,  $p < 0.01$ ). Hence, hypothesis 2 was supported.

**Table 7.** Path Coefficients of the Direct Relationship

	Relationship	Std Beta	Std Error	t- value	P Values	Decision
H1	Job Autonomy -> Employee Engagement	0.141	0.055	2.552**	0.006	Supported
H2	Employee Engagement -> Intention to Stay	0.539	0.044	12.198**	0.000	Supported

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

Thirdly, the coefficient of determination ( $R^2$  value) is utilized for evaluating 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 6 (on the following page) illustrates that the  $R^2$  of employee engagement was 0.571, implying that

57.1% of the variance in employee engagement can be explained by its predictor (job autonomy). Whereas the  $R^2$  value for the link between employee engagement and intention to stay was 0.291, indicating that 29.1% of the variance in intention to stay was explained by employee engagement. Both the  $R^2$  values of employee engagement (0.571) and intention to stay (0.291) were higher than Cohen (1988)'s recommended value of 0.26, which indicates a substantial model, respectively.

**Table 8.** 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	0.571	0.342
Intention to Stay	0.291	0.211

Fourthly, the effect size ( $f^2$ ) is the next measure of the  $R^2$  change. The effect size of the construct was assessed using Cohen's  $f^2$  (Cohen, 1988). Likewise, the effect size ( $f^2$ ) values above 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively (Cohen, 1988). Referring to Table 7, job autonomy (0.028) has a small effect in creating the  $R^2$  for employee engagement.

**Table 9.** The determination of effect size ( $f^2$ )

Relationships	$f^2$	Effect Size
Employee Engagement -> Intention to Stay	0.410	Large
Job Autonomy -> Employee Engagement	0.028	Small

Fifthly, the blindfolding procedure was used to test the model's predictive relevance ( $Q^2$ ). Based on Chin (2010)'s suggestion, when a  $Q^2$  value is greater than zero, it indicates that the model has predictive relevance for a

specific endogenous construct, whereas a  $Q^2$  value of zero or less indicates that the model does not have predictive relevance. As presented in Table 6, all of the two  $Q^2$  values for employee engagement ( $Q^2 = 0.342$ ) and intention to stay ( $Q^2 = 0.211$ ) are greater than 0, showing that the model is sufficiently predictive of relevance.

Next, the structural model was assessed with the presence of a mediator, namely employee engagement. Table 8 on the following page demonstrates that the indirect effect ( $\beta = 0.076$ ) was significant, with t-values of 2.611. The 95% bootstrapped confidence interval bias was calculated and revealed that the indirect effects at 95% Boot CI Bias Corrected [LL = 0.021, UL = 0.135], do not straddle a 0 in between, indicating there is mediation (Hair et al., 2017; Preacher & Hayes, 2004, 2008; Salamzadeh, 2015, 2018; Troise et al., 2023). As a result, the hypothesis on the mediating effect of employee engagement on job autonomy and intention to stay was supported.

**Table 10.** Indirect effect report

No	Relationship	Std. Beta	Std. Error	t-value	P Values	Confidence Interval (BC)		Decision
						LL	UL	
H3	Job Autonomy -> Employee Engagement -> Intention to Stay	0.076	0.029	2.611	0.009	0.021	0.135	Supported

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

## Discussion

The first hypothesis of this study found that there exists a significant positive relationship between job autonomy and employee engagement. This result is similar to past findings, where job autonomy was found to be a form

of innate psychological need that allows employees to have flexibility in managing their work (Kamel & Hashish, 2015; Mas-Machuca et al., 2016; Pereira et al., 2021; Rahman et al., 2022; Kawamorita et al., 2022; Radovic Markovic et al., 2012). In the current study, 51.67% of the respondents were between the ages of 28 and 38 (born between 1981 and 1991). It could be said that the majority of the respondents were from the Generation Y workforce (Dimock, 2019; Fry, 2020). Obviously, Generation Y is the workforce that has grown up in a digital world where advances in technology have shaped their personalities and characteristics, allowing them to be more effective and efficient in their work. This has led them to become more productive at once, making them demand more flexibility in terms of working hours, how they do their jobs, and the freedom to complete their tasks (Panteli, Yalabik, Rapti, & Panteli, 2018; Rosli & Hassim, 2017), which could positively impact employee engagement.

The second hypothesis also indicates that employee engagement has significantly impacted the intention to stay among Malaysian academics employed at Malaysian research universities. This finding is in accordance with the majority of literature in different contexts of study, which states that the greater the value of employee engagement, the higher the intention of the employee 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). The current finding shows that more than half (55.32%) of the academics who participated in this study had a period of employment of 10 years or more, and are more engaged in their work compared to those who had less than 10 years. These findings suggest that academics who have worked in research universities for 10 years or longer

tend to be more engaged at work, which may be why they continue to work in research universities.

Lastly, the findings of this study showed that employee engagement as the mediator construct accounted for mediating effects on the relationships between job autonomy and intention to stay (H3: Job Autonomy -> Employee Engagement -> Intention to Stay). This study is in line with Amri and Putra (2020), where they found that psychological empowerment affects the job satisfaction of administrative staff through employee engagement. This study found evidence that employee engagement is motivated by the innate psychological need for job autonomy. At the same time, the findings suggest that academics with higher engagement levels are less likely to leave their jobs. Likewise, this can be explained using self-determination theory (Ryan & Deci, 2000a), whereby job autonomy will pursue psychological needs of academics that can give them a sense of control over their actions and give them the ability or power to make judgements, resulting in a sense of engagement with their job (Rosli & Hassim, 2017; Ryan & Deci, 2000a). These findings imply that fulfilment of academics' innate psychological needs for job autonomy will ultimately impact on the intention to stay among Malaysian academics, and this relationship was mediated by employee engagement.

### ***Theoretical Implications***

The current study offers several important theoretical contributions. Firstly, the findings of current study indicated that innate psychological needs for job autonomy has an effect on employee engagement. Employee engagement also has a significant positive relationship with the intention to stay. Apparently, this research framework was conceptualized based on the self-

determination theory to address the gaps by successfully incorporating the innate psychological needs of job autonomy to develop positive employee engagement, which was later deployed to enhance the intention to stay.

Secondly, this study also conjectures the work of Meyer et al. (2010) and Rigby & Ryan (2018) by looking at the role of employee engagement as a mediator in the perspective of the self-determination theory concept. The present study demonstrates the mediation role of employee engagement between innate psychological needs for job autonomy and the intention to stay significantly. This study also presents an empirical analysis and demonstrates that the self-determination theory model has a substantial influence on the antecedents of engagement and explains the consequences of engagement, particularly the intention to stay. Therefore, the present study adds and contributes to the existing literature by examining the integrated model based on well-established psychological theory to explain the intention to stay among academics in developing countries.

Although the concept of needs satisfaction has been researched in western countries and in other industries, there have been limited studies applying this concept to explain academics' innate psychological needs in research universities. Thus, this study makes a significant contribution to the research of Malaysian research universities by testing the need for job autonomy as an antecedent of academics' engagement and intention to stay. This study provides a perspective on academics' needs for satisfaction by drawing from the theoretical implications of self-determination theory (Deci & Ryan, 1980) to provide an integrated framework. In other words, this research helps to expand the framework of self-determination theory in the field of academics at research universities.



### ***Practical Implications***

Apart from the theoretical contributions for academicians and researchers, several other implications can be drawn for practitioners and policy makers as well. The findings of this research showed that job autonomy was discovered to have a significant positive effect on employee engagement, as well as employee engagement as a mediator has a significant positive indirect effect on intention to stay. Indeed, it is claimed that giving academics' job autonomy promotes high-quality types of motivation and volitional as well as engagement in their work. Learning from this, policy makers, administrators, and university management should aim at providing individual academics with considerable independence and freedom in planning their jobs, as well as choosing the procedures for carrying out the jobs to foster employee engagement and the intention to stay among Malaysian academics employed at Malaysian research universities.

This study also highlights the value of using a self-determination theory framework to better understand how Malaysian research universities' policies and practices may support academics' experiences of job autonomy to facilitate a volitional and high-quality type of motivation and engagement for their activities. Quantitative data from this study suggests that academics who have a lot of job autonomy are more likely to be engaged in their job, which influences their intention to stay. These results suggest that Malaysian research universities will have to ensure that academics exercise the freedom to conduct research, teaching, and engage in other aspects of their jobs.

### ***Limitations and Future Research***

The current study has several limitations that provide researchers with opportunities for future studies. However, the scope of this study is limited as it covers only the academics employed at Malaysian research universities. Due to its context-specific nature, this limitation is hard to overcome. The absence of qualitative data to augment the quantitative results of this study is another limitation. Although the results of this study supported the direct effects and mediation hypotheses, by solely relying on questionnaires, the respondents' ability and opportunity to provide comments were limited. Another weakness is the potential for inaccurate reporting of attitudes, as some individuals may have believed an exaggerated response of dissatisfaction and an intention to leave the research university. Therefore, future research may also consider a qualitative study. In-depth descriptions of academics' experiences and innate psychological needs satisfaction in their own words will be useful for delving deeper into the issues of turnover intention. It would be interesting to add more variables to the innate psychological needs for autonomy, competence, and relatedness to better understand the intention to stay among academics.

Furthermore, because there were more females than males in this study, the population does not reflect the gender distribution in Malaysian research universities. The generalizability of the findings is therefore inadequate. As a result, there is a need to use the probability sampling technique. Future research should also include a greater proportion of male academics and focus on factors that contribute to a better understanding of the intention to stay in Malaysian research universities.

## **Conclusion**

The findings of this study showed that job autonomy has a significant direct positive effect on employee engagement and, at the same time, significantly impacts the intention to stay via employee engagement as the mediator. Furthermore, this research also proved that the intention to stay was influenced by employee engagement. This study has made theoretical and practical contributions that will benefit and have important implications for academicians, government, policy makers, and university administrators. Based on the findings, the study also provided suggestions to the government, policy makers, and university administrators that job autonomy and employee engagement have important effects in order to increase the intention to stay among academics employed at Malaysian research universities.

## **References**

1. Ahn, J., & Back, K.-J. (2019). The role of autonomy, competence and relatedness: Applying self-determination theory to the integrated resort setting. *International Journal of Contemporary Hospitality Management*, 31(1), 87–104.
2. Akhtar, M. S., Salleh, L. M., & Mehmood, S. A. (2017). Conceptualization of paradoxical outcomes on employees' intentions to stay and intentions to leave. *Science International-Lahore*, 29(6), 1215–1218.
3. Akhtar, M. S., Salleh, L. M., Ghafar, N. H., Khurro, M. A., & Mehmood, S. A. (2018). Conceptualizing the impact of perceived organizational support and psychological contract fulfillment on employees' paradoxical intentions of stay and leave. *International Journal of Engineering and Technology*, 7(2.5), 9–14.
4. Albadi, A. A., Hussain, I. A., & Ahmad, N. (2017). Factors influencing motivation among academic staffs in private universities in Oman. *Electronic Journal of Business & Management*, 2(1), 29–37.
5. Alemu, D. S., & Pykhtina, O. (2020). To leave or to stay: Faculty mobility in the Middle East. *International Journal of Education Policy and Leadership*, 16(1), 1–18.

6. Alfes, K., Shantz, A., Truss, C., & Soane, E. (2013). The link between perceived human resource management practices, engagement and employee behaviour: A moderated mediation model. *The International Journal of Human Resource Management*, 24(2), 330–351.
7. Alias, N. E., Noor, N. M., & Hassan, R. (2014). Examining the mediating effect of employee engagement on the relationship between talent management practices and employee retention in the Information and Technology (IT) organizations in Malaysia. *Journal of Human Resources Management and Labor Studies*, 2(2), 227–242.
8. Al-khrabsheh, A. A., Abo-murad, M., & Bourini, I. (2018). Effect of organisational factors on employee turnover intention: An empirical study of academic professionals at Jordanian government universities. *International Journal of Human Resource Studies*, 8(2), 164–177.
9. Al-Tit, A. A., & Hunitie, M. (2015). The mediating effect of employee engagement between its antecedents and consequences. *Journal of Management Research*, 7(5), 47–62.
10. Amri, Z., & Putra, T. R. I. (2020). The effect of perceived organizational support and psychological empowerment on employee engagement and its impact on the satisfaction of administrative employee in general hospital RSUDza. *International Journal of Scientific and Management Research*, 3(3), 71–83.
11. Andrew, O. C., & Sofian, S. (2012). Individual factors and work outcomes of employee engagement. *Procedia-Social and Behavioral Sciences*, 40, 498–508.
12. Anees, R. T., Heidler, P., Cavaliere, L. P. L., & Nordin, N. A. (2021). Brain drain in higher education. The impact of job stress and workload on turnover intention and the mediating role of job satisfaction at universities. *European Journal of Business and Management Research*, 6(3), 1–8.
13. Asaari, M. H. A. H., Dwivedi, A., Lawton, A., & Desa, N. M. (2016). Academic leadership and organizational commitment in public universities of Malaysia. *European Scientific Journal*, 12(16), 329–344.
14. Ashraf, M., Mangi, R. A., & Laghari, M. K. (2020). Study of workplace ostracism, employee engagement and interacting effect of psychological capital (PSCAP): A conservation of resources theory perspective. *Pakistan Business Review*, 22(1), 43–59.
15. Awang, A., Ibrahim, I. I., Md Nor, M. N., Mohd Razali, M. F., Mat Arof, Z., & Abdul Rahman, A. R. (2015). Academic factors and turnover intention: Impact of organization factors. *Higher Education Studies*, 5(3), 24–44.
16. Aziz, N. N. A., & Ramli, H. (2010). Determining critical success factors of intention to quit among lecturers: An empirical study at UiTM Jengka. *Gading Business and Management Journal*, 14, 33–46.

17. Azman, N., Omar, I. C., Yunus, A. S. M., & Zain, A. N. M. (2016). Academic promotion in Malaysian public universities: a critical look at issues and challenges. *Oxford Review of Education*, 42(1), 71–88.
18. Bakker, A. B., & Oerlemans, W. G. M. (2019). Daily job crafting and momentary work engagement: A self-determination and self-regulation perspective. *Journal of Vocational Behavior*, 112, 417–430.
19. Bang, H. (2015). Volunteer age, job satisfaction, and intention to stay: A case of nonprofit sport organizations. *Leadership & Organization Development Journal*, 36(2), 161–176.
20. Baran, M., & Sypniewska, B. (2020). The impact of management methods on employee engagement. *Sustainability*, 12(1), 1–15.
21. Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
22. Batrancea, L. M., Nichita, A., De Agostini, R., Batista Narcizo, F., Forte, D., de Paiva Neves Mamede, S., ... & Budak, T. (2022). A self-employed taxpayer experimental study on trust, power, and tax compliance in eleven countries. *Financial Innovation*, 8(1), 1–23.
23. Batrancea, L., Nichita, A., Olsen, J., Kogler, C., Kirchler, E., Hoelzl, E., ... & Zukauskas, S. (2019). Trust and power as determinants of tax compliance across 44 nations. *Journal of Economic Psychology*, 74, 102191.
24. Bello, J. S. A., & Steil, A. V. (2020). Intent to leave versus intent to stay in technology organizations. *International Journal of Human Capital and Information Technology Professionals*, 11(2), 79–90.
25. Beraldin, A. R., Danese, P., & Romano, P. (2022). Employee involvement for continuous improvement and production repetitiveness: a contingency perspective for achieving organisational outcomes. *Production Planning and Control*, 33(4), 323–339.
26. Bin, X., & Penetrante, M. O. T. (2022). Supervisor' s leadership style, personnel empowerment, engagement, work-life balance, and job satisfaction for personnel intention to stay in the center for disease control and prevention in Henan Province , China. *Multidisciplinary Research Journal*, 1(1), 34–52.
27. Biswas, S., & Bhatnagar, J. (2013). Mediator analysis of employee engagement: Role of perceived organizational support, P-O fit, organizational commitment and job satisfaction. *VIKALPA*, 38(1), 27–41.
28. Boamah, S. A., Hamadi, H. Y., Havaei, F., Smith, H., & Webb, F. (2022). Striking a Balance between Work and Play: The Effects of Work–Life Interference and Burnout on Faculty Turnover

- Intentions and Career Satisfaction. *International Journal of Environmental Research and Public Health*, 19(2), 1–14.
29. Book, L., Gatling, A., & Kim, J. S. (2019). The effects of leadership satisfaction on employee engagement, loyalty, and retention in the hospitality industry. *Journal of Human Resources in Hospitality & Tourism*, 18(3), 368–393.
  30. Cao, X., & Chen, L. (2021). Relationships between resilience, empathy, compassion fatigue, work engagement and turnover intention in haemodialysis nurses: A cross-sectional study. *Journal of Nursing Management*, 29(5), 1054–1063.
  31. Cardy, R. L., & Lengnick-hall, M. L. (2011). Will they stay or will they go? Exploring a customer-oriented approach to employee retention. *Journal of Business and Psychology*, 26(2), 213–217.
  32. Chamchan, C., & Kittisuksathit, S. (2019). Generation Y employees in Thai workplaces: What make them stay or leave. *Asia-Pacific Social Science Review*, 19(1), 49–65.
  33. Chin, W. W. (2010). How to write up and report PLS analyses. In V. E. Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of partial least squares: Concepts, Methods and Applications* (pp. 655–690). Berlin, Heidelberg: Springer.
  34. Chiniara, M., & Bentein, K. (2016). Linking servant leadership to individual performance: Differentiating the mediating role of autonomy, competence and relatedness need satisfaction. *The Leadership Quarterly*, 27(1), 124–141.
  35. Cho, S., Johanson, M. M., & Guchait, P. (2009). Employees intent to leave: A comparison of determinants of intent to leave versus intent to stay. *International Journal of Hospitality Management*, 28(3), 374–381.
  36. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
  37. Crome, E., Meyer, L., Bosanquet, A., & Hughes, L. (2019). Improving engagement in an early career academic setting: Can existing models guide early career academic support strategies? *Higher Education Research & Development*, 38(4), 717–732.
  38. Dana, L. P., Salamzadeh, A., Hadizadeh, M., Heydari, G., & Shamsoddin, S. (2022). Urban entrepreneurship and sustainable businesses in smart cities: Exploring the role of digital technologies. *Sustainable Technology and Entrepreneurship*, 1(2), 100016.
  39. Dana, L. P., Salamzadeh, A., Mortazavi, S., & Hadizadeh, M. (2022). Investigating the impact of international markets and new digital technologies on business innovation in emerging markets. *Sustainability*, 14(2), 983.

40. Dana, L. P., Salamzadeh, A., Mortazavi, S., Hadizadeh, M., & Zolfaghari, M. (2022). Strategic futures studies and entrepreneurial resiliency: a focus on digital technology trends and emerging markets. *Tec Empresarial*, 16(1), 87-100.
41. Dana, L. P., Salamzadeh, A., Ramadani, V., & Palalić, R. (2022). The New Economy with Aspects of the Bazaar. In *Understanding Contexts of Business in Western Asia: Land of Bazaars and High-Tech Booms* (pp. 521-534).
42. Dana, L. P., Salamzadeh, A., Ramadani, V., & Palalic, R. (Eds.). (2022). *Understanding contexts of business in Western Asia: Land of bazaars and high-tech booms* (Vol. 4). World Scientific.
43. Darnell, T. J., Brockmeier, L. L., Gibson, N. M., Green, R. B., & Archibald, J. G. (2020). Nursing faculty job satisfaction and intent to stay. *Journal of Education & Social Policy*, 7(3), 12–21.
44. Das, P. (2020). The relationship of employee engagement and affective commitment with turnover intentions of banking employees. *Mukt Shabd Journal*, IX(V), 896–914.
45. Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. In *Advances in experimental social psychology* (Vol. 13, pp. 39–80). New York, NY: Academic Press.
46. Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press. <https://doi.org/10.2307/2070638>
47. Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
48. Dhir, S., & Shukla, A. (2019). Role of organizational image in employee engagement and performance. *Benchmarking: An International Journal*, 0(0), 1–20.
49. Dimock, M. (2019). Defining generations: Where Millennials end and Generation Z begins. *Pew Research Center*, 17(1), 1–8.
50. Dorssen-boog, P. Van, Jong, J. De, Veld, M., & Vuuren, T. Van. (2020). Self-leadership among healthcare workers: A mediator for the effects of job autonomy on work engagement and health. *Front Psychology*, 11(1420), 1–13.
51. Dysvik, A., & Kuvaas, B. (2013). Perceived job autonomy and turnover intention: The moderating role of perceived supervisor support. *European Journal of Work and Organizational Psychology*, 22(5), 563–573.
52. Eivazzadeh, N., & Nadiri, H. (2022). An empirical study to investigate the coercive management behavior: Evidence From Academia. *E&M Economics and Management*, 25(1), 42–59.
53. Fernandes, K. K., & Balu, L. (2018). Impact of employee engagement on an employee’s intention to stay at Rayoner hospitality. *International Journal of Computer & Mathematical Sciences*, 7(3), 36–40.

54. Fry, R. (2020). Millennials overtake Baby Boomers as America's largest generation. Retrieved April 30, 2021, from <http://www.pewresearch.org/fact-tank/2020/04/28/millennials-overtake-baby-boomers/>
55. George, C. (2015). Retaining professional workers: What makes them stay? *Employee Relations*, 37(1), 102–121.
56. Ghosh, P., Rai, A., Chauhan, R., Baranwal, G., & Srivastava, D. (2016). Rewards and recognition to engage private bank employees: Exploring the “obligation dimension.” *Management Research Review*, 39(12), 1738–1751.
57. Ghosh, P., Satyawadi, R., Joshi, J. P., & Shadman, M. (2013). Who stays with you? Factors predicting employees' intention to stay. *International Journal of Organizational Analysis*, 21(3), 288–312.
58. Githinji, N., & Gachunga, H. (2017). Influence of organizational climate on employee performance in state corporations in Kenya: A case of Kenya industrial estates limited. *The Strategic Journal of Business & Change Management*, 4(2(22)), 376–395.
59. Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60(2), 159–170.
60. Hair, J. F., Black, W. C., Babin, B. J. B., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River, NJ: Pearson Education.
61. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate data analysis* (8th ed.). United Kingdom: Annabel Ainscow.
62. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Los Angeles: Sage.
63. Haivas, S., Hofmans, J., & Pepermans, R. (2013). Volunteer engagement and intention to quit from a self-determination theory perspective. *Journal of Applied Social Psychology*, 43(9), 1869–1880.
64. Harun, S., & Ahmad, I. (2022). Determinants of intention to stay of higher learning institutions administrators: A review of theory and evidence. *International Journal of Academic Research in Business and Social Sciences*, 12(4), 834–846.
65. Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *New Challenges to International Marketing Advances in International Marketing*, 20, 277–319.
66. Heyns, M. M., McCallaghan, S., & Wet, E. H. de. (2022). The role of supervisor support and basic psychological needs in predicting work engagement, burnout and turnover intentions in a medical contract research service setting. *Research in Social and Administrative Pharmacy*, 18(6), 2981–2988.



67. Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*, 2(1), 231–274.
68. Hong, E. N. C., Hao, L. Z., Kumar, R., Ramendran, C., & Kadiresan, V. (2012). An effectiveness of human resource management practices on employee retention in institute of higher learning: A regression analysis. *International Journal of Business Research and Management*, 3(2), 60–79.
69. Ibrahim, M., & Al Falasi, S. (2014). Employee loyalty and engagement in UAE public sector. *Employee Relations*, 36(5), 562–582.
70. Imam, A., Shah, F. T., & Raza, A. (2013). Mediating role of job stress between workplace discrimination (Gender discrimination-glass ceiling) and employee attitudinal outcomes (Job satisfaction and motivation) in banking sector of Pakistan. *Middle-East Journal of Scientific Research*, 18(2), 264–274.
71. Isa, A., & Ibrahim, H. I. (2014). Talent management practices and employee engagement: A study in Malaysian GLCSs. *International Journal of Business, Economics and Law*, 4(1), 64–70.
72. Ismail, N. H., & Noor, A. (2016). Occupational stress and its associated factors among academician in a research university, Malaysia. *Malaysian Journal of Public Health Medicine*, 16(1), 81–91.
73. Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724.
74. Kamel, N. F., & Hashish, E. A. A. (2015). The relationship between psychological need satisfaction, job affective wellbeing and work uncertainty among the academic nursing educators. *Journal of Nursing Education and Practice*, 5(8), 99–108.
75. Kassim, M. A. M. M. A. M., Abdullah, M. S., Mansor, M. F., Asyraf, M., Muhammad, S. A., Mohd, F. M., ... Mohd, F. M. (2018). The mediating role of conflict management styles between organizational justice and affective commitment among academic staffs in Malaysian public universities. In *MATEC Web of Conferences* (Vol. 150, pp. 1–9).
76. Kawamorita, H., Salamzadeh, A., Kirby, D. A., & Demiryürek, K. (2022). The impact of the COVID-19 pandemic on the development of entrepreneurial universities: A study of higher education institutions in Turkey. In *Socioeconomic Dynamics of the COVID-19 Crisis: Global, Regional, and Local Perspectives* (pp. 63-82). Cham: Springer International Publishing.
77. Khan, I., Nawaz, A., Khan, F., Khan, H., & Yar, N. B. (2013). Determining the impact of demographics on the intention to leave of academicians in HEIs of the DCs like Pakistan. *Global Journal of Management and Business Research Administration and Management*, 13(7), 40–48.

78. Khan, I., Nawaz, A., Khan, S., Khan, F., Khan, S., & Yar, N. B. (2014). The impact of organizational commitment (OC) on the intention to leave (ITL) among the academicians in higher educational institutions (HEIs) in Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 4(2), 243–254.
79. Khan, M. S., Khan, I., Kundi, G. M., Khan, S., Nawaz, A., Khan, F., & Yar, N. B. (2014). The impact of job satisfaction and organizational commitment on the intention to leave among the academicians. *International Journal of Academic Research in Business and Social Sciences*, 4(2), 114–131.
80. Kim, J., & Gatling, A. (2018). The impact of using a virtual employee engagement platform (VEEP) on employee engagement and intention to stay. *International Journal of Contemporary Hospitality Management*, 30(1), 242–259.
81. Kim, W., Han, S. J., & Park, J. (2019). Is the role of work engagement essential to employee performance or “nice to have”? *Sustainability (Switzerland)*, 11(4), 1–16.
82. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(0), 607–610.
83. Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1(1), 3–30.
84. Maclennan, D., & Miao, J. T. (2017). *Transformative transfers: Growing capacities in UK social housing (AHURI final report No. 276)*. Melbourne.
85. Mahomed, F. E., & Rothmann, S. (2020). Strength use, training and development, thriving, and intention to leave: The mediating effects of psychological need satisfaction. *South African Journal of Psychology*, 50(1), 24–38.
86. Makhbul, Z. M., & Khairuddin, S. M. H. S. (2013). Stress among Malaysian academics: A conceptual study. *International Journal of Academic Research in Business and Social Sciences*, 2(1), 196–211.
87. Malinowska, D., Tokarz, A., & Wardzichowska, A. (2018). Job autonomy in relation to work engagement and workaholism: Mediation of autonomous and controlled work motivation. *International Journal of Occupational Medicine and Environmental Health*, 31(4), 445–458.
88. Manogharan, M. W., Thivaharan, T., & Rahman, R. A. (2018). Academic staff retention in private higher education institute–Case study of private colleges in Kuala Lumpur. *International Journal of Higher Education*, 7(3), 52–78.
89. Markos, S., & Sridevi, M. S. (2010). Employee engagement: The key to improving performance. *International Journal of Business and Management*, 5(12), 89–96.

90. Martela, F., & Riekkari, T. J. J. (2018). Autonomy, competence, relatedness, and beneficence: A multicultural comparison of the four pathways to meaningful work. *Frontiers in Psychology, 9*(0), 1–14.
91. Martela, F., Ryan, R. M., & Steger, M. F. (2018). Meaningfulness as satisfaction of autonomy, competence, relatedness, and beneficence: Comparing the four satisfactions and positive affect as predictors of meaning in life. *Journal of Happiness Studies, 19*(5), 1261–1282.
92. Mashile, D. A., Munyeka, W., & Ndlovu, W. (2021). Organisational culture and turnover intentions among academics: A case of a rural-based university. *Studies in Higher Education, 46*(2), 385–393.
93. Mas-Machuca, M., Berbegal-Mirabent, J., & Alegre, I. (2016). Work-life balance and its relationship with organizational pride and job satisfaction. *Journal of Managerial Psychology, 31*(2), 586–602.
94. Mayfield, J., & Mayfield, M. (2012). The relationship between leader motivating language and self-efficacy: A partial least squares model analysis. *Journal of Business Communication, 49*(4), 357–376.
95. Mehta, M., Kurbetti, A., & Dhankhar, R. (2014). Review paper—Study on employee retention and commitment. *International Journal of Advance Research in Computer Science and Management Studies, 2*(2), 154–164.
96. Memon, M. A., Salleh, R., Baharom, M. N. R., & Harun, H. (2014). Person-organization fit and turnover intention: The mediating role of employee engagement. *Global Business and Management Research: An International Journal, 6*(3), 205–210.
97. Meyer, J. P. (2017). Has engagement had its day: What’s next and does it matter? *Organizational Dynamics, 46*(2), 87–95.
98. Meyer, J. P., & Gagné, M. (2008). Employee engagement from a self-determination theory perspective. *Industrial and Organizational Psychology, 1*(1), 60–62.
99. Meyer, J. P., Gagné, M., & Parfyonova, N. M. (2010). Toward an evidence-based model of engagement: What we can learn from motivation and commitment research. In S. Albrecht (Ed.), *Handbook of employee engagement: Perspectives, issues, research and practice* (pp. 62–73). Northampton, MA: Edward Elgar.
100. Naalu, E. (2021). A review of employee retention strategies: Implication for future research. *European Journal of Business and Management, 13*(1), 20–29.
101. Nair, S., Mee, L. Y., & Cheik, A. N. (2016). Internal push factors and external pull factors and their relationships with lecturers’ turnover intention. *International Journal of Business and Management, 11*(12), 110–126.

102. Nancarrow, S., Bradbury, J., Pit, S. W., & Ariss, S. (2014). Intention to stay and intention to leave: Are they two sides of the same coin? A cross-sectional structural equation modelling study among health and social care workers. *Journal of Occupational Health*, 56(4), 292–300.
103. Nasiri, M. (2017). The relationship between cognitive factors of empowerment and organizational commitment. *Report and Opinion*, 9(1), 11–16.
104. Ng'ethe, J. M., Iravo, M. E., & Namusonge, G. S. (2012). Determinants of academic staff retention in public universities in Kenya: Empirical review. *International Journal of Humanities and Social Science*, 2(13), 205–212.
105. Noor, K. M. (2011). Work-life balance and intention to leave among academics in Malaysian public higher education institutions. *International Journal of Business and Social Science*, 2(11), 240–248.
106. Panteli, N., Yalabik, Z. Y., Rapti, A., & Panteli, N. (2018). Fostering work engagement in geographically-dispersed and asynchronous virtual teams. *Information Technology & People*, 0(0), 1–17.
107. Parfyonova, N. M., Meyer, J. P., Espinoza, J. A., Anderson, B. K., Cameron, K. A., Daljeet, K. N., & Vaters, C. (2019). Managerial support for employees' psychological needs: A multidimensional approach. *Canadian Journal of Behavioural Science*, 51(2), 122–134.
108. Pathak, D., & Srivastava, S. (2017). What makes employees stay? Role of psychological empowerment in organisational commitment-turnover intentions relationship: A study on Indian managers. *International Journal of Indian Culture and Business Management*, 14(2), 180–197.
109. Pereira, J., Braga, V., Correia, A., & Salamzadeh, A. (2021). Unboxing organisational complexity: how does it affect business performance during the COVID-19 pandemic?. *Journal of Entrepreneurship and Public Policy*, 10(3), 424-444.
110. Pieters, W. R., Zyl, E. van, & Nel, P. (2022). Factors affecting lecturers' decision to stay or leave academia, Namibia. *SA Journal of Human Resource Management*, 20(February), 1–10.
111. Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731.
112. Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
113. Radovic Markovic, M., Lindgren, C., Grozdanic, R., Markovic, D., & Salamzadeh, A. (2012). Freedom, individuality and women's entrepreneurship education. *Entrepreneurship Education-A Priority for the Higher Education Institutions*, Kiten.

114. Rahman, A., Björk, P., & Raval, A. (2020). Exploring the effects of service provider's organizational support and empowerment on employee engagement and well-being. *Cogent Business and Management*, 7(1), 1–19.
115. Rahman, M. M., Salamzadeh, A., & Tabash, M. I. (2022). Antecedents of entrepreneurial intentions of female undergraduate students in Bangladesh: a covariance-based structural equation modeling approach. *Journal of Women's Entrepreneurship and Education*, (1-2), 137-153.
116. Ramasamy, V., & Abudullah, N. H. (2020). Assessing turnover antecedent among academics at private universities in Malaysia. *International Journal of Scientific and Technology Research*, 9(3), 1642–1650.
117. Ramasamy, V., & Abdullah, N. H. binti. (2017). Faculty's turnover in private higher learning institutions: A phenomenal inquiry. *Business and Economic Horizons*, 13(2), 169–181.
118. Ramayah, T., Lee, J. W. C., & In, J. B. C. (2011). Network collaboration and performance in the tourism sector. *Service Business*, 5(4), 411–428.
119. Rathakrishnan, T., Imm, N. S., & Kok, T. K. (2016). Turnover intentions of lecturers in private universities in Malaysia. *Pertanika Journals of Social Sciences & Humanities*, 24(S), 129–146.
120. Rifin, H. M., & Danaee, M. (2022). Association between burnout, job dissatisfaction and intention to leave among medical researchers in a research organisation in Malaysia during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(16), 1–14.
121. Rigby, C. S., & Ryan, R. M. (2018). Self-determination theory in human resource development: New directions and practical considerations. *Advances in Developing Human Resources*, 20(2), 133–147.
122. Robyn, A. M., & Du Preez, R. (2013). Intention to quit amongst Generation Y academics in higher education institutions. *SA Journal of Industrial Psychology*, 39(1), 1–14.
123. Rosli, N. D., & Hassim, A. A. (2017). The relationship between intrinsic motivation and job engagement among Gen Y employees at National Heart Institute, work-life balance as moderating effect. *Journal of Administrative Science*, 14(1), 1–15.
124. Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46(4), 655–684.
125. Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67.
126. Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
127. Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600–619.

128. Salamzadeh, A. (2018). Start-up boom in an emerging market: A niche market approach (pp. 233-243). Springer International Publishing.
129. Salamzadeh, A. (2015). New venture creation: Controversial perspectives and theories. *Economic Analysis*, 48(3-4), 101-109.
130. Salamzadeh, A., Hadizadeh, M., Rastgoo, N., Rahman, M. M., & Radfard, S. (2022). Sustainability-oriented innovation foresight in international new technology based firms. *Sustainability*, 14(20), 13501.
131. Salamzadeh, A., & Kirby, D. A. (2017). New venture creation: How start-ups grow?. *AD-minister*, (30), 9-29.
132. Salamzadeh, A., & Kawamorita Kesim, H. (2017). The enterprising communities and startup ecosystem in Iran. *Journal of Enterprising Communities: People and Places in the Global Economy*, 11(4), 456-479.
133. Salamzadeh, A., Tajpour, M., & Hosseini, E. (2022). Measuring the impact of simulation-based teaching on entrepreneurial skills of the MBA/DBA students. In *Technology and Entrepreneurship Education: Adopting Creative Digital Approaches to Learning and Teaching* (pp. 77-104). Cham: Springer International Publishing.
134. Salamzadeh, A., Tajpour, M., Hosseini, E., & Salamzadeh, Y. (2022). Geotourism and Destination Brand Selection: Does Social Media Matter?. In *Economics and Management of Geotourism* (pp. 105-124). Cham: Springer International Publishing.
135. Sánchez-Cardona, I., Vera, M., & Marrero-Centeno, J. (2021). Job resources and employees' intention to stay: The mediating role of meaningful work and work engagement. *Journal of Management and Organization*, 0(0), 1–17.
136. Sanjeevkumar, V. (2012). A study on employee' s intention to stay in public companies, Kedah, Malaysia. *Zenith International Journal of Business Economics & Management Research*, 2(4), 91–101.
137. Schaufeli, W. B. (2012). Work engagement: What do we know and where do we go? *Romanian Journal of Applied Psychology*, 14(1), 3–10.
138. Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30, 893–917.
139. Sekaran, U., & Bougie, R. (2016). *Research methods for Business*. (7th, Ed.). United Kingdom: John Wiley & Sons Ltd.
140. Sengupta, S., & Dev, S. (2013). What makes employees stay? Exploring the dimensions in context of urban-centric business process outsourcing industry in India. *Strategic Outsourcing: An International Journal*, 6(3), 258–276.

141. Shah, S. H. A., & Beh, L.-S. (2016). The impact of motivation enhancing practices and mediating role of talent engagement on turnover intentions: Evidence from Malaysia. *International Review of Management and Marketing*, 6(4), 823–835.
142. Shams, M. S., & Niazi, M. M. (2018). Fostering faculty engagement in public sector universities: A proposed conceptual model. *Kardan Journal of Economics and Management Sciences*, 1(2), 88–100.
143. Sheehan, C., Tham, T. L., Holland, P., & Cooper, B. (2019). Psychological contract fulfilment, engagement and nurse professional turnover intention. *International Journal of Manpower*, 40(2), 2–16.
144. Shuck, B., Peyton Roberts, T., & Zigarmi, D. (2018). Employee perceptions of the work environment, motivational outlooks, and employee work intentions: An HR practitioner’s dream or nightmare? *Advances in Developing Human Resources*, 20(2), 197–213.
145. Shuck, B., Zigarmi, D., & Owen, J. (2015). Psychological needs, engagement, and work intentions: A Bayesian multi-measurement mediation approach and implications for HRD. *European Journal of Training and Development*, 39(1), 2–21.
146. Su, X., & Ng, S. (2018). The differential impacts of collective psychological ownership and membership identification on work burnout and engagement. *Journal of Social Service Research*, 0(0), 1–15.
147. Tambi, A. M. A., Muslim, R. A. B., Yusof, N. L. H. M., & Tahir, M. N. H. (2017). Factors influencing the intention to stay amongst medical academic staff. *Academic Journal of Science*, 7(2), 217–226.
148. Tauhed, S. Z., Rasdi, R. M., Samah, B. A., & Ibrahim, R. (2018). The influence of organizational factors on work engagement among academics at Malaysian research universities. *International Journal of Academic Research in Business and Social Sciences*, 8(10), 973–988.
149. Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, 46(2), 259–293.
150. Theron, M., Barkhuizen, N., & Du Plessis, Y. (2014). Managing the academic talent void: Investigating factors in academic turnover and retention in South Africa. *SA Journal of Industrial Psychology*, 40(1), 1–14.
151. Thibault-Landry, A., Egan, R., Crevier-Braud, L., Manganelli, L., & Forest, J. (2018). An empirical investigation of the employee work passion appraisal model using self-determination theory. *Advances in Developing Human Resources*, 20(2), 148–168.

152. Troise, C., Camilleri, M. A., Pioggerella, S., & Strazzullo, S., Salamzadeh, A. (2023). SMEs' strategies for dealing with the Covid-19 emergency: a case study in the Italian food industry. *International Journal of Entrepreneurship and Small Business*, forthcoming.
153. Tshukudu, T. T. (2020). Employee engagement and staff turnover and its implication on the organisational performance: Case of AON Botswana. *International Journal of Economic Behavior and Organization*, 8(1), 1–11.
154. Wang, C. K. J., Liu, W. C., Kee, Y. H., & Chian, L. K. (2019). Competence, autonomy, and relatedness in the classroom: understanding students' motivational processes using the self-determination theory. *Heliyon*, 5(7), 1–6.
155. Whipp, P. R., & Salin, K. (2018). Physical education teachers in Australia: Why do they stay? *Social Psychology of Education*, 21(4), 897–914.
156. Wicaksono, A., & Pusparini, E. S. (2022). The innovative behavior during work from home in Indonesia: The role of job autonomy and work engagement. In 6th Global Conference on Business, Management, and Entrepreneurship (GCBME 2021) (Vol. 657, pp. 442–448). Atlantis Press.
157. Woon, W., Tan, C. L., & Nasuridin, A. M. (2017). Linking organizational climate, psychological ownership, and intention to stay: A proposed model. *Global Business and Management Research: An International Journal*, 9(1), 127–142.
158. Yimer, I., Nega, R., & Ganfure, G. (2017). Academic staff turnover intention in Madda Walabu University, Bale Zone, south-east Ethiopia. *International Journal of Higher Education*, 6(3), 21–28.
159. Yunus, A. S., & Pang, V. (2015a). Academic promotion in Malaysia: Meeting academics' expectation and institutional needs. *RIHE International Seminar Reports*, 23(0), 61–81.
160. Yunus, A. S., & Pang, V. (2015b). Career prospects of the Malaysian academic profession. *RIHE International Seminar Reports*, 22(0), 97–118.
161. Zacher, H., Schmitt, A., Jimmieson, N. L., & Rudolph, C. W. (2018). Dynamic effects of personal initiative on engagement and exhaustion: The role of mood, autonomy, and support. *Journal of Organizational Behavior*, 40(1), 38–58.
162. Zhang, W., Jex, S. M., Peng, Y., & Wang, D. (2017). Exploring the effects of job autonomy on engagement and creativity: The moderating role of performance pressure and learning goal orientation. *Journal of Business and Psychology*, 32(3), 235–251.
163. Zin, M. L. B. M. (2017). The mediating role of perceived organizational support on the relationship between pay and intention to stay. *Management Review: An International Journal*, 12(1), 57–77.



164. Zin, M. L. M., Othman, S. Z., & Pangil, F. (2012). Compensation practices and transformational leadership influences on intention to stay: The mediating role of perceived organizational support. In Knowledge Management International Conference (KMICe) (pp. 453–459). Johor Bahru, Malaysia.

**Yean Sze Ong** is a PhD student at Graduate School of Business, Universiti Sains Malaysia. She has 10 years of working experience in Human Resources for a few private companies, specializing in recruitment and staffing and being involved in various aspects such as talent management as well as compensation and benefits.

**Noor Fareen Abdul Rahim** is a Senior Lecturer with Graduate School of Business, Universiti Sains Malaysia (USM) since 2017. Before her career in USM, she was a banker with RHB Bank Berhad for 16 years. She then joined Universiti Utara Malaysia from 2015 to 2017. She has published her work in various SCOPUS and ISI journals. Her area of interest includes Organizational Behavior, Human Resource Management, Occupational Safety and Health, Internal Control System, Enterprise Risk Management, Operational Risk Management, and Technology Management. She is also involved with Executive Development Programs as a facilitator for government and private institutions.

**Haniruzila Hanifah** holds a PhD in Organizational Behaviour from School of Management, Universiti Sains Malaysia (USM). Her research interests include entrepreneur's behaviour, Small and Medium Enterprise (SME), Innovation, Human Resource Management, and technology management. She has published her research in various Indexed Journals. In addition, she was involved in reviewing articles as well as presented her research articles locally and internationally. Currently, Haniruzila is a Senior Lecturer at the Graduate School of Business, Universiti Sains Malaysia.

**Junaimah Jauhar** is an Associate Professor. She holds Ph.D. from University Utara Malaysia. Her articles have been published in a wide range of various journals. She is interested in doing research in international trade, brain drain to overseas, diversity management, talent management, organizational behaviour, etc.