

# Employees' Turnover Intention in the Construction Industry in Indonesia

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**Abstract:** Employee turnover costs pose a big challenge for many companies. Studies show that employee turnover can cost about 20% of the salaries in hiring, training and lost productivity, although estimates give much higher figures. Therefore, company management must have a strategy in terms of retaining employees to avoid the desire of moving (turnover intention) from the company. This study aims to analyse the turnover intention of construction employees by extending the planned behaviour model's theory. The research method used is a survey method with a quantitative descriptive approach. The population in this study are 36 ployees who work in construction companies in Indonesia. The sampling method using a non-probability sampling technique, namely using a convenience sampling technique is employed in the current study. A questionaire was used to collect data from 197 respondents. The data were collected and analysed using structural equation modelling (SEM) techniques, using maximum likelihood estimation with covariance matrix as the input with Amos 24 software. The results indicated that attitude and perceived behavioural control had a positive and significant effect on turnover intention. In contrast, subjective norm had a positive but not significant effect on turnover intention. Subjective norms indirectly had a significant effect on turnover intention through attitude and perceived behavioural control.

**Keywords:** Employees, Turnover intention, Theory of planned behaviour, Construction industry, Indonesia

### INTRODUCTION

Turnover rates are an essential issue for companies. From the second decade of this century and into the foreseeable future, employee turnover 54 remains a dominant concern for managers and executives. In 2015 58 for instance, the Society for Human Resource Management (SHRM) reported that 46% of HR managers deem employee turnover as their top concern, up from 25% in 2013 (Lee et al., 2018). Voluntary turnover remains a significant problem in Asia. Employee turnover rates continue reaching new highs with no sign of slowing down. Turnover rates in Hong Kong are 2,011 and in Singapore are close to 10%, with China's shocking 20%. Among firms in China and Hong Kong, 30% reported 11% to 40% of employee turnover (Anvari, JianFu and Chermahini, 2014). Turnover attracts organisational scientists and employers alike because this apparent behaviour may signal poor quality of working life and ineffective organisational processes. In particular, turnover often imposes high financial costs on firms. When employees leave their jobs, employers must expend funds to find and train replacements (Hom, 2004). Thus, employee

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turnover costs are a significant challenge for many firms. Studies show that employee turnover can cost around 20% of salaries in recruiting, training and lost productivity, although some estimates are much higher (Carter et al., 2019).

Rebollo-Sanz (2012) revealed that understanding job turnover holds the key to understanding how the labour market operates. Turnover is necessary because it helps allocate workers to those jobs where they are most productive and allows employers to hire and fire according to prevailing economic conditions, though it is not always optimal. Reducing the turnover rate of employees who meet and exceed goals could significantly impact the firm's overall bottom line (Gyensare et al., 2015).

The presence of the construction industry in the global economy is ubiquitous. It means that regardless of the state of economic development in a country, virtually everyone can identify with its outputs and its tenure (Jacobsson and Wilson, 2012). The construction industry builds and provides infrastructure for other economic sectors, such as agriculture, energy, tourism, manufacturing, trade and others (Budiwibowo et al., 2009). The construction industry is a project-based industry where team members of a project work together and this team often disintegrates at project termination. Due to the dynamic nature of the industry, learning new concepts happens every day by addressing specific issues that lead to project success (Deepak, Mahesh and Medi, 2019). The construction industry has contributed significantly to the development of different countries from the post-industrial era to the present. Nevertheless, the construction business is persistently plagued by high employee turnover (Kerdngern and Thanitbenjasith, 2017). Therefore, innovation may be of great importance to the global construction industry as it plays a critical role in leveraging the competitiveness of enterprises (Staniewski, Nowacki and Awruk, 2016).

Employees who are actively looking for other employment (i.e., job search) or frequently avoiding the workplace (e.g., absences, taking extended breaks) tend to quit the workplace permanently as well. Along these lines, one's job performance can provide clues about eventual employee departures, especially "dysfunctional turnover" when quitting by valued employees can most damage companies. Several studies have shown that low performers (because they are denied rewards or fear potential dismissal) and high performers (because they have more job options) more often quit than moderate performers (Lee, Lee and Jeon, 2017). Minimising employee turnover has always been one of the key performance indicators for human resource managers in most companies. A possible solution is to understand the factors that affect employee turnover. One strategy to retain employees is to recognise employee behaviour, in this case, turnover intention. Numerous studies have been conducted to understand more about employee turnover using the attitude variable. Most of this research also uses job satisfaction and organisational commitment as the primary attitude (Castle, Engberg and Anderson, 2007; Hall et al., 2010; Lee et al., 1992; Stanley et al., 2013; Vandenberghe et al., 2021). Researchers consider measuring turnover intentions as one of the best predictors of turnover, as well as a predecessor of actual employee turnover (Zhang et al., 2019; Leisanyane and Khaola, 2013; Tziner et al., 2015; Mosadeghrad, Ferlie and Rosenberg, 2008; Sahi and Mahajan, 2014; Park, Christie and Sype, 2014; Park and Jung, 2015; Labrague et al., 2018; Tnay et al., 2013; Van Dick et al., 2004). Employee turnover intention has received much scholarly attention because the turnover intention is associated with actual voluntary turnover (Lambert, Hogan and Barton, 2001).

In this study, to understand the behaviour of employees to leave, the theory of planned behaviour (TPB) from Ajzen (1991) was applied. TPB has been applied in various fields, more specifically in understanding employee behaviour (Jimmieson, Peach and White, 2008; Solikhah, 2014; Straatmann et al., 2016). Research has supported the predictability of TPB in the context of harmful activities, fashion counterfeits (Kim and Karpova, 2010), exit public rental housing (Li et al., 2017) and employee turnover (Van Breukelen, Van Der Vlist and Steensma, 2004). The majority of these studies support the usefulness of Ajzen's theory and his view that behavioural intent is a powerful predictor of targeted behaviour. TPB is a widely used framework that links beliefs and behaviour. Its central theme is that intention is the motivational factor that influences behaviour. Its constructs (i.e., attitude, subjective norm [SN] and perceived behavioural control [PBC]) can explain intention and behaviour with high accuracy (Sun et al., 2015).

Research related to the use of the TPB model in predicting employee turnover intention includes Sahi and Mahajan (2014), who examined the effect of employee organisational commitment on actual turnover through behavioural intention in the telecommunications service sector, the results of the study showed that commitment affects attitude, SN and PBC, thereby affecting employee turnover intention where PBC was found to be the strongest predictor of turnover intention. Furthermore, Van Dick et al. (2004) examined whether the variables that have traditionally played an essential role in turnover studies, namely, job satisfaction, organisational commitment, age and tenure can explain the additional variants in intention and voluntary turnover. The results showed that turnover intention proved to be the best predictor of actual turnover, where the effects of the TPB variable and the external variable were considered.

This study corroborates Sahi and Mahajan's (2014) findings. Van Breukelen, Van Der Vlist and Steensma (2004) empirically tested the relationship between TPB and turnover intention. We developed the TPB model used by empirically investigating the relationship of SNs towards attitude towards behaviour and SN towards PBC.

Several studies are related to employee turnover intention with a variable that influences it. Including research conducted by Bani-Melhem, Quratulain and al-Hawari (2021), who state that employee self-esteem and innovative behaviour are very influential on turnover intention, where the two variables can be regarded as a form of employee attitude towards the work undertaken. Subsequent research was conducted by Zafar et al. (2021), which shows that family motivation is very influential on turnover intention, wherein this study family motivation is one part of PBC. Finally, Boakye et al. (2021) also studied the topic of employee turnover intention and reported that interpersonal support had a significant effect on employee intentions to move from work, where interpersonal support is part of the employee's attitude.

Previous research on employee turnover intention in the construction business is still minimal, especially in Indonesia. Specifically, the current study attempts to determine the turnover intention of construction employees by implementing TPB and examines the inclusion of other relationships that are expected to increase the strength of the theory explained in the context of employee turnover. The first step of the research is to understand employee turnover intention and understand the factor behind employee turnover intention. Then determine the research population and the sampling technique used. Data were collected with the help of a questionnaire filled out by all research samples (construction employees), with

analytical techniques using descriptive statistics and inferential statistics. Statistical inferencing was done by structural equation modelling (SEM) to evaluate the strength of the empirical relationship in the proposed model.

### Turnover Intention

Employee turnover is the voluntary cessation of membership in an organisation by an individual receiving monetary compensation for participation in that organisation (Hom, 2004). Many researchers have used turnover intentions as the most immediate and most accurate predictor of actual turnover (Van Breukelen, Van Der Vlist and Steensma, 2004). A meta-analysis by Griffeth, Hom and Gaertner (2000) revealed that turnover intention is the best predictor of (voluntary) turnover. Turnover intent is the probability that an employee will leave an organisation (Mobley, 2011). Turnover intention is also referred to as turnover plan or turnover tendency. Turnover intention is the behavioural tendency of employees to attempt to leave their work organisation, which may lead to actual turnover (Chen et al., 2014). Quit intentions are of unique importance because an employee who is preoccupied with the thought of leaving the organisation may be detached from his/her work and coworkers with considerable consequences for performance (Ladebo, 2006).

The issue of employee turnover is essential to address because high attrition can extensively affect companies, directly and indirectly, resulting in increased hiring and training costs, lost production, reduced profits and overall lower employee morale (Hayward et al., 2016). When the highest performing employees leave, as so often seems the case, turnover is a more significant problem than when poor performers quit (Mowday, 1984). However, organisations may benefit from employees leaving because of payroll reductions and voluntary separation of poor performers, leading to better organisational performance (Dess and Shaw, 2001).

### TPB

Since its introduction 26 years ago, the TPB has, by any objective measure, become one of the most frequently cited and influential models for the prediction of human social behaviour (Ajzen, 1985; 1991; 2011). The theory focuses on an individual's intention to undertake a given behaviour when it is presumed that the behaviour is under the individual's volitional control (Gakobo and Jere, 2016). TPB model is subjective and inherently veered toward individualistic/personalised perception of human behaviour. It implies that individuals will intend to perform a behaviour when they evaluate it positively, believe that significant others think they should perform it and perceive it to be within their control (Courneya and McAuley, 1995).

The TPB postulates three conceptually independent determinants of intention. The first is the attitude toward the behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. The second predictor is a social factor, termed SN. It refers to the perceived social pressure to perform or not to perform the behaviour. Finally, the third antecedent intention is the degree of PBC, which, as we saw earlier, refers to the perceived ease or difficulty of performing the behaviour. It is assumed to reflect the experience and anticipated impediments and obstacles. As a general

rule, the more favourable the attitude and SN concerning behaviour are and the greater the PBC is, the stronger the individual intends to perform the behaviour under consideration (Ajzen, 1991).

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### CONCEPTUAL FRAMEWORKS AND HYPOTHESES

The conceptual framework of this study is stated in Figure 1, using the construct drawn from the TPB. TPB explains how an individual's attitude toward behaviour, SN and PBC predict intent, leading to behaviour (Ajzen, 1985). The stronger a person's attitude, SNs and PBCs, the more likely behavioural intentions will be triggered. Behavioural beliefs are the cognitive basis of behavioural attitudes, norms and PBCs (Li et al., 2018). This study assumes that individuals decide to leave work based on three constructs of TPB: attitude toward behaviour, SN and PBC. Precisely, attitude toward the act (ATT) reflects the results of employee evaluations of benefits or losses when leaving work. The SN presents the perception of employee confidence obtained from the views of others towards leaving work. Finally, employee beliefs determine PBC about the ease or difficulty of leaving the job. This perception is also determined by the potential resources that support or inhibit leaving work. The assumed hypothesis is based on TPB in the context of employee turnover is as follows:

H1: ATT has a positive and significant influence on turnover intention.

H2: SN has a positive and significant influence on turnover intention.

H3: PBC has a positive and significant effect on turnover intention.

In this study, two paths between SN and ATT, and SN and PBC were examined in addition to relationships suggested by TPB. Previous research has shown that normative and attitudinal constructs may be dependent, therefore, SN could influence attitudes toward behaviour (Kim and Karpova, 2010). Furthermore, SN has a significant influence on the intentions and attitudes of individuals concerning certain types of behaviour (Hsu and Lu, 2004).

SN may also affect perceptions about the ease or difficulty of performing a behaviour. PBC reflects experience, knowledge about products and anticipated obstacles. Because people share information, knowledge and experiences with family and friends, the opinions of significant others may influence perceptions about the amount of control over certain behaviours (Kim and Karpova, 2010).

H4: SN has a positive and significant influence on ATT.

H5: SN has a positive and significant influence on PBC.

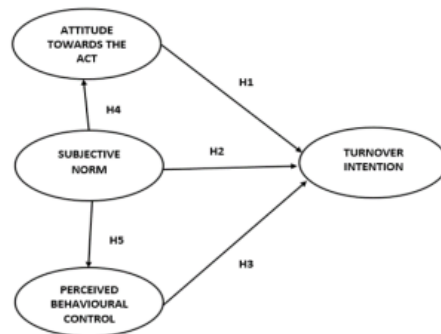


Figure 1. Conceptual framework

## METHODOLOGY

The population in this study is employees working in construction companies in Indonesia. The population includes both managers and skilled workers. To obtain a representative sample, we randomly selected five construction companies in Indonesia. The sampling method in this study used a non-probability sampling technique, namely using a convenience sampling technique.

We employed the questionnaire survey method to collect data to test the research hypotheses. The survey instrument consisted of 12 questions designed to assess various variables related to the TPB. The form contained questions about ATT, SN, PBC and turnover intention. The questionnaire was distributed to 228 employees working in the five construction companies. A total of 197 questionnaires were returned, while 31 respondents did not submit the questionnaire.

The proposed model and hypothesis were tested with SEM with Amos 24 software. SEM refers to a broad statistical framework that involves the specification of a substantive or theoretical model and the testing of the model to observed data (Bauldry, 2015). Structural models are often represented by a path diagram in which squares represent observed variables, ovals represent hypothesised latent variables and unidirectional arrows represent regression-type coefficients. Bidirectional arrows represent unanalysed correlations or covariances (Hayashi, Bentler and Yuan, 2007). SEM remains a significant analytic technique (Schreiber, 2017). SEM can handle a large number of endogenous and exogenous variables, as well as latent (unobserved) variables specified as linear combinations (weighted averages) of the observed variables (Golob, 2003).

All variables in the current study are latent variables and were measured by various item scales. All items were adopted from previous literature and modified slightly to fit the current research context. Each item is measured on a 5-point Likert scale from 1 = "Strongly disagree" to 5 = "Strongly agree". Table 1 shows the measurement items which can be explained as follows: The ATT is measured using three items from Moksness and Olsen (2017). The SN measurement consists of three items adapted from Gao et al. (2017) and Roncancio et al. (2015). Three items from Kim and Karpova (2010) were employed to measure PBC. Finally, the turnover intention was measured using three items as per the method proposed by (Madden, Ellen and Ajzen, 1992).

Procedural and statistical methods are used to overcome common-method bias (Podsakoff et al., 2003). Participation in this research was voluntary. All questionnaires were filled anonymously to ensure confidentiality. The questionnaires were tested for validity and reliability before being used in retrieving the primary data. Testing was conducted on 30 respondents. Furthermore, Harman's single factor test was conducted to determine whether there is any common method bias in the data set. The result of exploratory factor analysis indicates that the first factor held 38.591% variance ( $< 40$ ), suggesting that common method bias has no impact on the present study (Babin, Griffin and Hair, 2016).

Table 1. Multicollinearity statistics test

Variable	Collinearity Statistics	
	Tolerance	Variance Inflation Factor (VIF)
	0.738	1.356
	0.810	1.235
	0.867	1.153

Bias can also be caused by the correlation between independent variables (there is an indication of multicollinearity), so a non-multicollinearity test must be carried out. The existence of multicollinearity can be ascertained by testing the VIF. The VIF was used to evaluate the presence of multicollinearity among variables. VIFs ranged from 1.153 to 1.356 (as shown in Table 2), providing evidence that multicollinearity was not a problem in this study.

Table 2. Assumption test (normality test)

Variable	Min.	Max.	Skew.	Composite Reliability (CR)	Kurtosis	CR
PBC1	1.000	5.000	-0.862	-4.253	0.525	1.294
PBC2	1.000	5.000	-0.357	-1.760	-0.932	-2.298
PBC3	1.000	5.000	-0.527	-2.600	-0.323	-0.796
SN1	1.000	5.000	0.646	3.188	0.326	0.803
SN2	1.000	5.000	-0.019	-0.095	-0.595	-1.467
SN3	1.000	5.000	0.135	0.667	-0.640	-1.579
TI3	1.000	5.000	-0.296	-1.461	-0.716	-1.767
TI2	1.000	5.000	-0.080	-0.393	-0.878	-2.166
TI1	1.000	5.000	-0.368	-1.814	-0.827	-2.040
ATT3	1.000	5.000	0.188	0.927	-0.920	-2.269
ATT2	1.000	5.000	0.058	0.284	-1.027	-2.534
ATT1	1.000	5.000	0.051	0.254	-1.049	-2.586
Multivariate					-1.968	-0.649



## RESULTS

Of the total respondents, 77.2% were male and 22.8% female. The majority 42.6% were aged between 30 years old and 40 years old, 25.4% were aged between 40 years old to 50 years old, 20.8% were aged less than 30 years old and 11.2% were aged more than 50 years old. The education level of the respondents was 25.8% had a diploma-level education, 68.5% had a university-level education and 5.7% had postgraduate-level education.

SEM using maximum likelihood estimation was applied to analyse the data. Two assumptions in the SEM analysis were the assumption of normality and no outliers. The normality assumption test was carried out using the critical ratio skewness value of  $\pm 2.58$  at a significant level of 0.01 (1%). The data is normally distributed if the critical ratio skewness value is below  $\pm 2.58$  (Ghozali, 2005). Table 2 demonstrates that all indicators have a critical ratio skewness value between  $\pm 2.58$ , so it can be concluded that the data from the indicators are normally distributed. The second assumption states that there are no outliers. Mahalanobis distance (Md) was used to test the outliers. Examination of multivariate outliers was performed using the Mahalanobis criteria at a level ( $p < 0.001$ ). Md was evaluated using  $\times 2$  at degrees of freedom for the number of parameters in the model used, namely 49, where from the statistical table obtained  $\times 249 = 33.93$  as the decision-making rule. If Md from the observation point is  $> 33.93$ , then it showed that the observation point is an outlier. In contrast, if Md from the observation point  $< 33.93$ , the observation point is not an outlier. The farthest observation point is the 63rd respondent with an Md-value = 21.453 when compared to the value  $\times 249 = 33.93$ , then the Md-value of the 63rd point  $< 33.93$ . It can be concluded that in this study, all observation points are not outliers.

The measurement model can be assessed by examining the reliability, convergent validity and discriminant validity. Reliability can be assessed by determining Cronbach's alpha ( $\alpha$ ), the CR and the average variance extracted (AVE). Hair et al. (2014) suggested that Cronbach's alpha is acceptable when it exceeds 0.70; CR is acceptable when it exceeds 0.70; AVE is acceptable when it exceeds 0.5. Table 3 shows that Cronbach's alphas for this study ranged from 0.797 to 0.888, all of which exceed the recommended value of 0.7. The CR ranges from 0.701 to 0.868, exceeding the recommended level of 0.70. The AVE range from 0.442 to 0.689, although the AVE of the SN (0.442) was lower than the standard (0.50) recommended by Hair et al. (2014), the construct was included in the SEM model, considering adequate reliability of the scale and the importance of the construct in the model. The convergent validity can be assessed using factor loadings. The factor loadings show the weight of each indicator as a measure of each variable. Based on data presented in Table 3 and Figure 2, the factor loading for each indicator is above 0.6 at the significance level of  $p < 0.05$ , suggesting good convergent validity.

Table 3. Test results of measurement model in SEM

Variable	Indicator	Standardised factor loading	p-value	CR	Average Variance extracted	Alpha Cronbach
Attitude towards the act	Leaving work is fun for me	0.836	***	0.796	0.566	0.845
	Leaving work is a good idea for me	0.721	***			
	Leaving work is profitable for me	0.693	***			
SN	My family thinks that I have to leave work	0.733	***	0.701	0.442	0.814
	My colleagues think that I have to leave work	0.638	***			
	My boss wants me to leave work	0.617	***			
PBC	Leaving work is easy for me	0.973	***	0.868	0.689	0.888
	I have full control to leave work	0.777	***			
	If I want, I can easily leave work	0.720	***			
Turnover Intention	I intend to leave work in the future	0.820	***	0.819	0.601	0.797
	I will try to leave work in the future	0.724	***			
	I am going to try to leave work in the future	0.780	***			

Overall structural model validation with the goodness of fit index (GoF) can also be done to validate the combined performance of the measurement model (outer model) and structural model (inner model) obtained through the following calculations:

$$GoF = \sqrt{AVE \times R^2} \quad \text{Eq. 1}$$

$$GoF = \sqrt{(0.566 + 0.442 + 0.689 + 0.601)/4} = \sqrt{0.5745 \times 0.925}$$

$$GoF = \sqrt{0.531} = 0.729$$

The determination of the GoF shows a value of 0.729. According to Ghazali (2005), small GoF = 0.1, medium GoF = 0.25 and large GoF = 0.36. Therefore, it can be concluded that the overall performance of the measurement model (outer model) and structural model (inner model) is good because the GoF value is more than 0.36 (GoF large scale).

H1 to H5 were tested through an SEM, using maximum likelihood estimation with a covariance matrix as the input. The goodness of fit overall model test results (as shown in Table 4) show that not all criteria indicate a good model. Arbuckle and Wothke (1995) stated that the best criteria used as an indication of model goodness are CMIN/df values less than 2 and RMSEA below 0.08. In this study, the values of CMIN/df (1.947) and RMSEA (0.070) have met the cut-off values. Therefore, the model is found suitable and feasible to use so that that interpretation can be made for further discussion.

Table 4. Test results of the overall GoF model

	Cut-off Value	Model Result	Fit
Chi-square	Smaller the better	95.426	Yes
Probability	$\geq 0.05$	0.000	No
CMIN/df	$\leq 2.00$	1.947	Yes
GFI	$\geq 0.90$	0.925	Yes
RMSEA	$\leq 0.08$	0.070	Yes
AGFI	$\geq 0.90$	0.880 $\approx$ 0.9	Yes
TLI	$\geq 0.90$	0.937	Yes
NFI	$\geq 0.90$	0.910	Yes
PNFI	0.60 to 0.90	0.675	Yes
CFI	$\geq 0.9$	0.953	Yes
PGFI	0 to 1.0	0.581	Yes

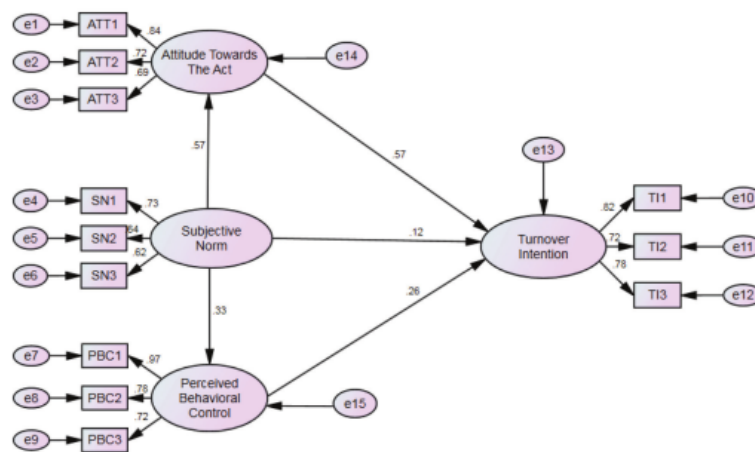


Figure 2. Standardised regression coefficient

Based on the SEM result (Figure 2 and Table 5), the following hypothesis testing results are obtained: ATT to turnover intention ( $\beta = 0.568$ ,  $p = 0.000$ ), because  $p \leq 0.05$  then ATT has a positive and significant effect on turnover intention. This

result shows empirical evidence to support H1. The SN on turnover intention ( $\beta = 0.120, p = 0.251$ ), because  $p \geq 0.05$  then the SN has a positive and insignificant effect on turnover intention. This result shows that there is no empirical evidence to support H2. PBC on turnover intention ( $\beta = 0.261, p = 0.000$ ), because  $p$  has a value  $\leq 0.05$  PBC has a positive and significant effect on turnover intention. These results suggest that there is empirical evidence to support H3. The SN to attitude towards the act ( $\beta = 0.574, p = 0.000$ ), because  $p \leq 0.05$  then the SN has a positive and significant effect on ATT. This result shows that there is empirical evidence to support H4. The SN to PBC ( $\beta = 0.332, p = 0.000$ ), because  $p \leq 0.05$  then the SN has a positive and significant effect on PBC. These findings indicate empirical evidence to support H5. SN indirectly affected turnover intention through ATT and PBC. The estimate of the indirect effect from SN to turnover intention through ATT was 0.326 ( $0.574 \times 0.568$ ), whereas the indirect effect from SN to turnover intention through PBC was 0.086 ( $0.332 \times 0.261$ ). The mediation variable is tested using the Sobel test, namely through hypothesis testing, to determine whether or not the mediation variable is significant. The standard deviation of the indirect effect (multiplication) refers to MacKinnon, Fairchild and Fritz (2007):

$$\sigma_{ab} = \sqrt{\sigma_a^2 a^2 + \sigma_b^2 b^2} \tag{Eq. 2}$$

In this case,  $a$  and  $b$  are coefficients of the path traversed. Sobel test statistics are  $z\_value$ , calculated by dividing the coefficient of indirect influence by the standard error,

$$z\_value = (a * b) / \sqrt{b^2 SE_a^2 + a^2 SE_b^2} \tag{Eq. 3}$$

where

$a$  = Standardised regression coefficient influence of the explanatory variable  $X$  on the mediating variable  $M$ ,

$SE_a$  = Standard error for coefficient  $a$ ,

$b$  = Standardised regression coefficient influence of the mediating variable  $M$  on the dependent variable  $Y$ , and

$SE_b$  = Standard error for coefficient  $b$ .

Table 5. Result structural model

Independent Variable	Dependent Variable	Standardised	CR	p-Value
ATT	Turnover intention	0.568	5.491	0.000*
SN	Turnover intention	0.120	1.148	0.251
PBC	Turnover intention	0.261	3.713	0.000*
SN	ATT	0.574	5.645	0.000*
SN	PBC	0.332	3.815	0.000*

Note: \*Significant at  $p \leq 0.05$

The results of the Sobel test (as shown in Table 6) reveal that ATT and PBC remarkably mediate the relationship between SN and turnover intention.

Table 6. Result of Sobel test

Relationship	Sobel Test Statistics (> 1.96)	Sig. ( $p < 0.05$ )
<-----> SN TI via ATT	3.107	0.002
<-----> SN TI via PBC	2.172	0.029

Furthermore, to verify the usefulness of the TPB model development, the goodness of fit of the original TPB model was also evaluated. The measurement results on the original TPB model, the GoF indicator (Chi-square = 147.067; CMIN/df = 2.884; GFI = 0.889; RMSEA = 0.098; AGFI = 0.830; TLI = 0.875; NFI = 0.861; PNFI = 0.665; CFI = 0.903; PGFI = 0.581), compared with the measurement results of the GoF in model development (as shown in Table 6) show that the model development has a better fit.

## DISCUSSION

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The objective of this study was to examine TPB in the context of the turnover intention of construction employees in Indonesia. The study findings show a positive and significant effect of ATT and PBC on turnover intention, while SN does not significantly influence turnover intention. SN has a positive and significant effect on ATT and PBC. ATT and PBC significantly mediate the relationship between SN and turnover intention.

The findings showed that ATT has the most positive and significant influence on turnover intention, which corroborates previous research (Armitage and Conner, 2001; Gorgievski et al., 2018; Nasri and Charfeddine, 2012; Oluka et al., 2017; Shih and Fang, 2004). This result implies that the individual forms a strong attitude towards leaving work, based on the belief that the behaviour can provide benefits or satisfaction for them. Ajzen (2005) suggests that beliefs determine attitudes towards behaviour about a behaviour's consequences or behavioural beliefs.

This study also validated that PBC is a positive and significant determinant of turnover intention. The findings show conformity with previous research (Cheung and To, 2017; Jalilvand and Samiei, 2012; Lee, 2009; Rhodes et al., 2015; Oztekin et al., 2017). This may be attributed to the fact that employees feel they have the competence and opportunity to get a job elsewhere, they tend to have a high turnover rate.

The findings of this study also show that SN has a positive and insignificant influence on turnover intention. This finding is consistent with several studies using TPB, which found that SN was the weakest intention predictor (Van Breukelen, Van Der Vlist and Steensma, 2004; Solikhah, 2014; Gakobo and Jere, 2016) and insignificant (Gao et al., 2017). This result is contrary to TPB, which states that the SN influences intention. This result shows that social pressure from others does not impact the employees' decision to leave their job. This finding is beyond our expectations but is interesting to explain. Perhaps the reason is that the survey participants came from several companies. Moreover, it is also possible that most of the participants in this survey are still young (= 37.59 years old). They are more rational and have their own opinions. Final decisions and behaviour largely depend on their rational thinking. This argument supports the opinion of Gao et al. (2017).

SN has a positive and significant effect on ATT. It shows that the influence of one's community plays an essential role in shaping attitudes toward behaviour. This result aligns with Kim and Karpova's (2010) research and Weng et al. (2017). The results also show that ATT significantly mediates the indirect effect of SN on turnover intention. These results imply that construction company employees tend to refer to the opinions of their family members, colleagues and superiors in forming an intention to leave. For example, people around them express a strong view that leaving the organisation is best.

Also, SN has a positive and significant effect on PBC; it indicates that one's community plays a role in shaping PBC. This result is also in line with the study of Kim and Karpova (2010). The results also show that PBC significantly mediates the indirect effect of SN on turnover intention. This result shows that employees' confidence to leave the organisation may be from people around them because people can be influenced by information or opinions.

These findings also provide empirical evidence that two additional pathways, namely SN for ATT and SN for PBC are essential extensions of TPB because they help improve the theory's ability to predict turnover intention.

## CONCLUSIONS AND RECOMMENDATIONS

This study employs the conceptual framework of TPB to predict the turnover intention of construction employees in Indonesia. The findings show that ATT and PBC have a positive and significant effect on turnover intention, while SN has a positive and insignificant effect on turnover intention. ATT is confirmed as the most dominant factor influencing employees' intentions to leave work, while SN is the most minor and insignificant. SN has a positive and significant effect on ATT and PBC. ATT and PBC significantly mediate the relationship between SN and turnover intention.

Overall, the results of this study have immense implications for future research and practice. The model developed in this study represents a significant increase for TPB by adding two pathways, namely SN to ATT and SN to PBC, significantly increasing the strength of the theory explanation in employee turnover intention. The results of this study provide practical insights for construction company human resource managers in reducing employee turnover. The following are some recommended implications:

1. Managers can start by influencing employee attitudes. Build a positive attitude by orienting and socialising the values and culture of the company in helping employees adapt. Managers are expected to provide opportunities for employees to improve their skills, career opportunities and responsibilities.
2. The construction industry is very dynamic and fast, which will result in employee fatigue, lack of time with family and so forth. Vacation packages, gifts or bonuses should be provided to make employees feel part of the organisation.
3. Management must strengthen emotional ties with employees and their families by doing activities such as recreation and so forth.

4. The research results confirm that attitude is a critical output. Thus, work attitudes need to be built before entering the working world, both in society and in higher education.

## LIMITATIONS AND FUTURE RESEARCH

There are several limitations in this research study. First, the data were collected from 74 five construction companies in Indonesia, which may restrict the generalisability of the results. Thus, in future research, we should attempt to collect data from more companies. Second, this research only considers the effects of psychological factors on employee turnover intention in construction companies in Indonesia. Therefore, future studies can consider other factors that might influence employee turnover intention in the construction industry. Third, the conclusions drawn from our study are based on cross-sectional data. We hypothesised causal relationships in line with the direction of causal influence as proposed in the TPB.

Further research should consider validating the proposed model in a longitudinal study, which would enable inferences about the direction of causality among variables in the model. Finally, the research model could be applied and investigated in different periods to make comparisons. For example, Ajzen (1991) suggested that the relative importance of attitude toward behaviour, SN and PBC in predicting behavioural intention may vary according to the specific behaviour and situation.

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## REFERENCES

- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology and Health*, 26(9), 1113–1127. <https://doi.org/10.1080/08870446.2011.611325>
- \_\_\_\_\_. (2005). *Attitudes, Personality and Behavior*. 2nd Ed. Berkshire: Open University Press.
- \_\_\_\_\_. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2): 179–211. [https://doi.org/10.1016/0749-5453\(91\)90020-T](https://doi.org/10.1016/0749-5453(91)90020-T)
- \_\_\_\_\_. (1985). From intentions to actions: A theory of planned behavior. In Uhl and J. Beckmann (eds.), *Action Control*. Berlin/Heidelberg: Springer, 11–39. [https://doi.org/10.1007/978-3-642-69746-3\\_2](https://doi.org/10.1007/978-3-642-69746-3_2)
- Anvari, R., JianFu, Z. and Chermahini, S.H. (2014). Effective strategy for solving voluntary turnover problem among employees. *Procedia – Social and Behavioral Sciences*, 129: 186–190. <https://doi.org/10.1016/j.sbspro.2014.03.665>
- Arbuckle, J.L. and Wothke, W. (1995). *Amos 4.0 User's Guide*. Chicago, IL: Small Waters Corporation.

- Armitage, C.J. and Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4): 471–499. <https://doi.org/10.1348/014466601164939>
- Babin, B.J., Griffin, M. and Hair, J.F. (2016). Heresies and sacred cows in scholarly market publications. *Journal of Business Research*, 69(8): 3133–3138. <https://doi.org/10.1016/j.jbusres.2015.12.001>
- Bani-Melhem, S., Quratulain, S. and Al-Hawari, M.A. (2021). Does employee resilience exacerbate the effects of abusive supervision? A study of frontline employees' self-esteem, turnover intention and innovative behaviors. *Journal of Hospitality Marketing and Management*, 30(5): 611–629. <https://doi.org/10.1080/19368623.2021.1860850>
- Bauldry, S. (2015). Structural equation modeling. In *International Encyclopedia of the Social and Behavioral Sciences (Second Edition)*. Amsterdam: Elsevier, 615–620. <https://doi.org/10.1016/B978-0-08-097086-8.44055-9>
- Boakye, K.G., Apenteng, B.A., Hanna, M.D., Kimsey, L., Mase, W.A., Opoku, S. T., Owens, C. and Peden, A. (2021). The impact of interpersonal support, supervisory support and employee engagement on employee turnover intentions: Differences between financially distressed and highly financially distressed hospitals. *Health Care Management Review*, 46(2): 135–144. <https://doi.org/10.1097/HMR.0000000000000251>
- Budiwibowo, A., Trigunaryah, B., Abidin, I.S. and Soeparto, H.G. (2009). Competitiveness of the Indonesian construction industry. *Journal of Construction in Developing Countries*, 14(1): 51–68.
- Carter, S.P., Dudley, W., Lyle, D.S. and Smith, J.Z. (2019). Who's the boss? The effect of strong leadership on employee turnover. *Journal of Economic Behavior and Organization*, 159: 323–343. <https://doi.org/10.1016/j.jebo.2018.12.028>
- Castle, N.G., Engberg, J. and Anderson, R.A. (2007). Job satisfaction of nursing home administrators and turnover. *Medical Care Research and Review*, 64(2): 191–211. <https://doi.org/10.1177/1077558706298291>
- Chen, M.L., Su, Z.Y., Lo, C.L., Chiu, C.H., Hu, Y.H. and Shieh, T.Y. (2014). An empirical study on the factors influencing the turnover intention of dentists in hospitals in Taiwan. *Journal of Dental Sciences*, 9(4): 332–344. <https://doi.org/10.1016/j.jds.2013.01.003>
- Cheung, M.F.Y. and To, W.M. (2017). The influence of the propensity to try on mobile users' attitudes toward app advertisements: An extension of the theory of planned behavior. *Computers in Human Behavior*, 76: 102–111. <https://doi.org/10.1016/j.chb.2017.07.011>
- Courneya, K.S. and McAuley, E. (1995). Cognitive mediators of the social influence-exercise adherence relationship: A test of the theory of planned behavior. *Journal of Behavioral Medicine*, 18(5): 499–515. <https://doi.org/10.1007/BF01904776>
- Deepak, M.D., Mahesh, G. and Medi, N.K. (2019). Knowledge management influence on safety management practices evidence from construction industry. *International Journal of Knowledge Management*, 15(4): 16–37. <https://doi.org/10.4018/IJKM.2019100102>
- Dess, G.G. and Shaw, J.D. (2001). Voluntary turnover, social capital and organizational performance. *Academy of Management Review*, 26(3): 446–456. <https://doi.org/10.5465/amr.2001.4845830>



- 16 Gakobo, T.W. and Jere, M.G. (2016). An application of the theory of planned behaviour to predict intention to consume African indigenous foods in Kenya. *British Food Journal*, 118(5): 1268–1280. <https://doi.org/10.1108/BFJ-10-2015-0344>
- 77 Gao, L., Wang, S., Li, J. and Li, H. (2017). Application of the extended theory of planned behavior to understand individual's energy saving behavior in workplaces. *Resources, Conservation and Recycling*, 127(April): 107–113. <https://doi.org/10.1016/j.resconrec.2017.08.030>
- 78 Ghozali, I. (2005). *Aplikasi Analisis Multivariat Dengan SPSS*. Semarang, Indonesia: Badan Penerbit Universitas Diponegoro.
- 11 Golob, T.F. (2003). Structural equation modeling for travel behavior research. *Transportation Research Part B: Methodological*, 37(1): 1–25. [https://doi.org/10.1016/S0191-2615\(01\)00046-7](https://doi.org/10.1016/S0191-2615(01)00046-7)
- 1 Gorgievski, M.J., Stephan, U., Laguna, M. and Moriano, J.A. (2018). Predicting entrepreneurial career intentions: Values and the theory of planned behavior. *Journal of Career Assessment*, 26(3): 457–475. <https://doi.org/10.1177/1069072717714541>
- 38 Griffeth, R.W., Hom, P.W. and Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests and research implications for the next millennium. *Journal of Management*, 26(3): 463–488. <https://doi.org/10.1177/014920630002600305>
- 40 Gyensare, M.A., Anku-Tsedde, O., Sanda, M.-A. and Okpoti, C.A. (2016). Transformational leadership and employee turnover intention. *World Journal of Entrepreneurship, Management and Sustainable Development*, 12(3): 243–266. <https://doi.org/10.1108/wjem-sd-02-2016-0008>
- 6 Hair, J.F.J., Black, W.C., Babin, W.C. and Anderson, R.E. (2014). *Multivariate Data Analysis*. Pearson New International Edition. 7th Ed. London: Pearson Education Limited.
- Hall, C. B., Brazil, K., Wakefield, D., Lerer, T. and Tennen, H. (2010). Organizational Culture, Job Satisfaction and Clinician Turnover in Primary Care. *Journal of Primary Care and Community Health*, 1(1): 29–36. <https://doi.org/10.1177/2150131909360990>
- Hayashi, K., Bentler, P.M. and Yuan, K.H. (2007). 13 Structural Equation Modeling. *Handbook of Statistics*, 27(7): 395–428. [https://doi.org/10.1016/S0169-7161\(07\)27013-0](https://doi.org/10.1016/S0169-7161(07)27013-0)
- Hayward, D., Bungay, V., Wolff, A.C. and Macdonald, V. (2016). A qualitative study of experienced nurses' voluntary turnover: Learning from their perspectives. *Journal of Clinical Nursing*, 25(9–10): 1336–1345. <https://doi.org/10.1111/jocn.13210>
- 30 Hom, P.W. (2004). Labor turnover. In *Encyclopedia of Applied Psychology, Three-Volume Set*. Amsterdam: Elsevier, 497–505. <https://doi.org/10.1016/B0-12-657410-3/00347-0>
- 24 Hsu, C.-L. and Lu, H.-P. (2004). Why do people play on-line games? An extended TAM with social influences and flow experience. *Information and Management*, 41(7): 853–868. <https://doi.org/10.1016/j.im.2003.08.014>
- 33 Jacobsson, M. and Wilson, T.L. (2012). The construction company through the lens of service management: Inferences from Sweden. *Services Marketing Quarterly*, 33(2): 155–176. <https://doi.org/10.1080/15332969.2012.662460>

- Jalilvand, M.R. and Samiei, N. (2012). The impact of electronic word of mouth on a tourism destination choice: Testing the theory of planned behavior (TPB). *Internet Research*, 22(5): 591–612. <https://doi.org/10.1108/10662241211271563>
- Jimmieson, N.L., Peach, M. and White, K.M. (2008). Utilizing the theory of planned behavior to inform change management: An investigation of employee intentions to support organizational change. *Journal of Applied Behavioral Science*, 44(2): 237–262. <https://doi.org/10.1177/0021886307312773>
- Kerdngern, N. and Thanitbenjasith, P. (2017). Influence of contemporary leadership on job satisfaction, organizational commitment and turnover intention: A case study of the construction industry in Thailand. *International Journal of Engineering Business Management*, 9: 1–8. <https://doi.org/10.1177/1847979017723173>
- Kim, H. and Karpova, E. (2010). Consumer attitudes toward fashion counterfeits: Application of the theory of planned behavior. *Clothing and Textiles Research Journal*, 28(2): 79–94. <https://doi.org/10.1177/0887302X09332513>
- Labrague, L.J., Gloe, D.S., McEnroe-Petitite, D.M., Tsaras, K. and Colet, P.C. (2018). Factors influencing turnover intention among registered nurses in Samar Philippines. *Applied Nursing Research*, 39(March): 200–206. <https://doi.org/10.1016/j.apnr.2017.11.027>
- Ladebo, O.J. (2006). Perceptions of trust and employees' attitudes: A look at Nigeria's agricultural extension workers. *Journal of Business and Psychology*, 20(3): 409–427. <https://doi.org/10.1007/s10869-005-9014-1>
- Lambert, E.G., Hogan, N.L. and Barton, S.M. (2001). The impact of job satisfaction on turnover intent: A test of a structural measurement model using a national sample of workers. *Social Science Journal*, 38(2): 233–250. [https://doi.org/10.1016/S0362-3319\(01\)00110-0](https://doi.org/10.1016/S0362-3319(01)00110-0)
- Lee, E.Y., Lee, S.B. and Jeon, Y.J.J. (2017). Factors influencing the behavioral intention to use food delivery apps. *Social Behavior and Personality*, 45(9): 1461–1474. <https://doi.org/10.2224/sbp.6185>
- Lee, M.C. (2009). Understanding the behavioural intention to play online games: An extension of the theory of planned behaviour. *Online Information Review*, 33(5): 849–872. <https://doi.org/10.1108/14684520911001873>
- Lee, T.W., Ashford, S.J., Walsh, J.P. and Mowday, R.T. (1992). Commitment propensity, organizational commitment and voluntary turnover: A longitudinal study of organizational entry processes. *Journal of Management*, 18(1): 15–32. <https://doi.org/10.1177/014920639201800102>
- Lee, T.W., Hom, P., Eberly, M. and Li, J. (2018). Managing employee retention and turnover with 21st century ideas. *Organizational Dynamics*, 47(2): 88–98. <https://doi.org/10.1016/j.orgdyn.2017.08.004>
- Leisanyane, K. and Khaola, P.P. (2013). The influence of organisational culture and job satisfaction on intentions to leave: The case of clay brick manufacturing company in Lesotho. *Eastern Africa Social Science Research Review*, 29(1): 59–75. <https://doi.org/10.1353/eas.2013.0001>
- Li, J., Wang, C.C. and Sun, J. (2017). Empirical analysis of tenants' intention to exit public rental housing units based on the Theory of Planned Behavior: The case of Wuhan, China. *Habitat International*, 69: 27–36. <https://doi.org/10.1016/j.habitatint.2017.08.006>

- Li, J., Zuo, J., Cai, H. and Zillante, G. (2018). Construction waste reduction behavior of contractor employees: An extended theory of planned behavior model approach. *Journal of Cleaner Production*, 172: 1399–1408. <https://doi.org/10.1016/j.jclepro.2017.10.138>
- MacKinnon, D.P., Fairchild, A.J. and Fritz, M.S. (2007). Mediation analysis. *Annual Review of Psychology*, 58: 593–614. <https://doi.org/10.1146/annurev.psych.58.110405.085542>
- Madden, T.J., Ellen, P.S. and Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin*, 18(1): 3–9. <https://doi.org/10.1177/0146167292181001>
- Mobley, W.H. (2011). Unanswered turnover. *Management*, 7(1): 111–116.
- Moksness, L. and Olsen, S.O. (2017). Understanding researchers' intention to publish in open access journals. *Journal of Documentation*, 73(6): 1149–1166. <https://doi.org/10.1108/JD-02-2017-0019>
- Mosadeghrad, A.M., Ferlie, E. and Rosenberg, D. (2008). A study of the relationship between job satisfaction, organizational commitment and turnover intention among hospital employees. *Health Services Management Research*, 21(4): 211–327. <https://doi.org/10.1258/hsmr.2007.007015>
- Mowday, R.T. (1984). Strategies for adapting to high rates of employee turnover. *Human Resource Management*, 23(4): 365–380. <https://doi.org/10.1002/hrm.3930230404>
- Nasri, W. and Charfeddine, L. (2012). Factors affecting the adoption of Internet banking in Tunisia: An integration theory of acceptance model and theory of planned behavior. *Journal of High Technology Management Research*, 23(1): 1–14. <https://doi.org/10.1016/j.hitech.2012.03.001>
- Oluka, O.C., Sun, Y., Komlan, K., Sun, L. and Zhang, L. (2017). Barriers to providing lifestyle counseling to cancer survivors: A theory of planned behavior study. *SAGE Open*, 7(2). <https://doi.org/10.1177/2158244017709045>
- Oztekin, C., Teksöz, G., Pamuk, S., Sahin, E. and Kilic, D.S. (2017). Gender perspective on the factors predicting recycling behavior: Implications from theory of planned behavior. *Waste Management*, 62: 290–302. <https://doi.org/10.1016/j.wasman.2016.12.036>
- Park, H.Y., Christie, R.L. and Sype, G.E. (2014). Organizational commitment and turnover intention in union and non-union firms. *SAGE Open*, 4(1). <https://doi.org/10.1177/2158244013518928>
- Park, I.J. and Jung, H. (2015). Relationships among future time perspective, career and organizational commitment, occupational self-efficacy and turnover intention. *Social Behavior and Personality*, 43(9): 1547–1562. <https://doi.org/10.2224/sbp.2015.43.9.1547>
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5): 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Rebollo-Sanz, Y. (2012). Unemployment insurance and job turnover in Spain. *Labour Economics*, 19(3): 403–426. <https://doi.org/10.1016/j.labeco.2012.02.008>
- Rhodes, R.E., Beauchamp, M.R., Conner, M., de Bruijn, G.J., Kaushal, N. and Latimer-Cheung, A. (2015). Prediction of depot-based specialty recycling behavior using an extended theory of planned behavior. *Environment and Behavior*, 47(9): 1001–1023. <https://doi.org/10.1177/0013916514534066>

- Roncancio, A.M., Ward, K.K., Sanchez, I.A., Cano, M.A., Byrd, T.L., Vernon, S.W., Fernandez-Esquer, M.E. and Fernandez, M.E. (2015). Using the theory of planned behavior to understand cervical cancer screening among Latinas. *Health Education and Behavior*, 42(5): 621–626. <https://doi.org/10.1177/1090198115571364>
- Sahi, G.K. and Mahajan, R. (2014). Employees' organisational commitment and its impact on their actual turnover behaviour through behavioural intentions. *Asia Pacific Journal of Marketing and Logistics*, 26(4): 621–646. <https://doi.org/10.1108/APJML-01-2014-0015>
- Schreiber, J.B. (2016). Update to core reporting practices in structural equation modeling. *Research in Social and Administrative Pharmacy*, 13(3): 634–643. <https://doi.org/10.1016/j.sapharm.2016.06.006>
- Shih, Y.Y. and Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3): 213–223. <https://doi.org/10.1108/10662240410542643>
- Solikhah, B. (2014). An application of theory of planned behavior towards CPA career in Indonesia. *Procedia – Social and Behavioral Sciences*, 164(August): 397–402. <https://doi.org/10.1016/j.sbspro.2014.11.094>
- Staniewski, M.W., Nowacki, R. and Awruk, K. (2016). Entrepreneurship and innovativeness of small and medium-sized construction enterprises. *International Entrepreneurship and Management Journal*, 12(3): 861–877. <https://doi.org/10.1007/s11365-016-0385-8>
- Stanley, L., Vanderberghe, C., Vandenberg, R. and Bentein, K. (2013). Commitment profiles and employee turnover. *Journal of Vocational Behavior*, 82(3): 176–187. <https://doi.org/10.1016/j.jvb.2013.01.011>
- Straatmann, T., Kohnke, O., Hattrup, K. and Mueller, K. (2016). Assessing employees' reactions to organizational change: An integrative framework of change-specific and psychological factors. *Journal of Applied Behavioral Science*, 52(3): 265–295. <https://doi.org/10.1177/0021886316655871>
- Sun, G., Acheampong, R.A., Lin, H. and Pun, V.C. (2015). Understanding walking behavior among university students using theory of planned behavior. *International Journal of Environmental Research and Public Health*, 12(11): 13794–13806. <https://doi.org/10.3390/ijerph121113794>
- Tnay, E., Othman, A.E.A., Siong, H.C. and Lim, S.L.O. (2013). The influences of job satisfaction and organizational commitment on turnover intention. *Procedia – Social and Behavioral Sciences*, 97: 201–208. <https://doi.org/10.1016/j.sbspro.2013.10.223>
- Tziner, A., Rabenu, E., Radomski, R. and Belkin, A. (2015). The mediating role of burnout and work satisfaction. *Journal of Work and Organizational Psychology*, 31(3): 207–213. <https://doi.org/10.1016/j.rpto.2015.05.001>
- Van Breukelen, W., Van Der Vlist, R. and Steensma, H. (2004). Voluntary employee turnover: Combining variables from the "traditional" turnover literature with the theory of planned behavior. *Journal of Organizational Behavior*, 25(7): 893–914. <https://doi.org/10.1002/job.281>
- Van Dick, R., Van Dick, R., Christ, O., Christ, O., Stellmacher, J., Stellmacher, J., Wagner, U., Wagner, U., Ahlswede, O., Ahlswede, O., Grubba, C., Grubba, C., Hauptmeier, M., Hauptmeier, M., Moltzen, K., Moltzen, K. and Tissington, P. (2004). Should i stay or should i go? Explaining turnover intentions with organizational identification and job satisfaction. *British Journal of Management*, 15(1): 351–360.

- Vandenberghe, C., Landry, G., Bentein, K., Anseel, F., Mignonac, K. and Roussel, P. (2021). A dynamic model of the effects of feedback-seeking behavior and organizational commitment on newcomer turnover. *Journal of Management*, 47(2): 519–544. <https://doi.org/10.1177/0149206319850621>
- Weng, G.S., Zailani, S., Iranmanesh, M. and Hyun, S.S. (2017). Mobile taxi booking application service's continuance usage intention by users. *Transportation Research Part D: Transport and Environment*, 57: 207–216. <https://doi.org/10.1016/j.trd.2017.07.023>
- 3 Zafar, R., Abid, G., Rehmat, M., Ali, M., Hassan, Q. and Asif, M.F. (2021). So hard to say goodbye: Impact of punitive supervision on turnover intention. *Total Quality Management and Business Excellence*, 33(5–6): 614–636. <https://doi.org/10.1080/14783363.2021.1882844>
- 21 Zhang, X., Ma, L., Xu, B. and Xu, F. (2019). How social media usage affects employees' job satisfaction and turnover intention: An empirical study in China. *Information and Management*, 56(6): 103136. <https://doi.org/10.1016/j.im.2018.12.004>

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Publication

---

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---

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