Analysis of Workplace Turnover Intentions in Manufacturing Industries of Laguna, Philippines

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Abstract

This case study explored the relationships of multiple variables affecting an employee's turnover intention in the manufacturing industries of Laguna, Philippines. Data from a survey of non-managerial employees in Calamba, Laguna were used to generate a model using structural equation modelling (SEM). Turnover intentions were measured through an individual's intent years to stay. The generated SEM model defined variables with direct effect on an individual's intent years to stay. Variables that are influential an individual's intent years to stay are the following; outside workplace characteristics, educational attainment, and job satisfaction. Individuals with higher educational attainment tends to jump from organizations for a shorter period. Well satisfied individuals and those with a good perception of outside workplace characteristics tend to have an extended period of intent years to stay. Variables affecting job satisfaction are job performance and job characteristics (promotion chances, competency, and salary growth). Performing better is a reward that boosts an individual's intent years to stay. Training, recognition, and mentorship increase an individual's capability of performing better, which indirectly affects an individual's intent years to stay.

Keywords
Workplace turnover, SEM, Workplace attrition

1. Introduction
Workplace turnover is one of the most researched aspects of organizational behaviour and is a topic of interest for both employer and employee (Garcés and Ferreira, 2019). The importance of analysing turnovers is to understand and predict actual quits, which can be used for critical management decision makings, such as employment and employee investment. Turnover intentions are referred to as an individual's estimate of his probability to seek opportunities in other organizations (Arshadi and Shahbazi, 2013). Turnover intentions are inversely proportional to an individual's intended duration to stay in the organization. Fishbeinand and Ajzen (1975) proposed an attitude behaviour theory, which indicates that if an individual has a mind-set of performing such behaviour, the result is likely to be the individual performing that behaviour eventually. Through Fishbeinand and Ajzen's attitude behaviour theory, we can use turnover intentions may serve as alternative in measuring actual turnovers.

Actual global turnover rate is at 13.2% (Radford, 2018). The average turnover rate in Asia is at 12.4% with South Korea having the lowest turnover rate at 8.4%. Alarmingly, the Philippines' turnover rate at 14.2% is higher than both Asia and the Global average (Radford, 2018). Organizations located in the Philippines are more likely to spend more on their rehiring process due to a higher turnover rate. The difference between turnover rates between each country lies in cultural factors that include workplace characteristics and job characteristics (Mcknight, Philips and Hardgrave 2009).

Job characteristics are defined as a worker perception about the nature and content of the task. It plays a significant role in keeping workers inspired and motivated. When workers feel that the job characteristics do not meet their expectations, it dramatically affects turnover intentions (Olubiyi et. al., 2019). Workplace characteristics, however, are defined as worker perception of rewards and recognition fairness, job security and supervisor satisfactory. It refers to how the employee feels about the workplace (Mcknight et. al., 2009). Both job and workplace characteristics were proven under studies to contribute towards turnover intentions highly. Moreover, these factors also have a direct

correlation with the mind-sets found in the workplace. According to Hom et. al. (2012), we can generally breakdown the mind-sets found in the workplace into four states: (1) Enthusiastic stayers because they want to, (2) Reluctant stayers because they have to, (3) Ardent leavers because they want to, and (4) Reluctant leavers because they have to.

Hom et. al. (2012) further defined that these employee states of mind may be related to their corresponding work performance. Reluctant stayers avoid giving up corporate benefits and job securities. They need to perform just enough not to get fired. Thus, reluctant stayers tend to be the average and low performers in the workplace (Hom et. al. 2012). Other relationships between the state of mind of workers and their performance are yet to be understood. Understanding the principles of workplace turnover intentions will help the organization maintain its people (Garcés and Ferreira, 2019). Keeping people for the long term is a critical aspect of manufacturing industries. Manufacturing industries are subject matter expert dependent. Specifically, these types of enterprises rely on employees who profoundly understand the process within the organization. Each manufacturing industry will most like have a different set-up from one another. Transfer of employees from one manufacturing industry to another will still take weeks or months, depending on the difficulty of the process while understanding new set-up.

Other than cost savings, counteractions to turnover intentions will impact the overall job satisfaction of employees. An increase in total job satisfaction directly affects the productivity of the organization as well. Gruneberg (1979) defined that satisfied workers produced better services for the organization. Thus, job satisfaction can be directly increased through the factors that study will identify.

McKnight et. al. (2009) published a study describing the factors affecting turnovers focusing on workplace characteristics and job characteristics. However, Mcknight et al. did not further explore the relationship between employee performance and job satisfaction with turnovers. Examining these factors would yield a more detailed model that predicts turnovers. Also, Mcknight's study is set-up in an IT industry and may not be applicable in other sectors. The relationship of job satisfaction with turnover intention was explored by Arshadi (2013). Arshadi also used descriptive statistics and generated a model that defines the correlation between job satisfaction and other factors such as emotional exhaustion. However, Arshadi's study is only applicable to Iran Industrial organizations. Results may vary because of different culture such as what Calamba Philippines have.

1.1 Objectives

This case study aims to understand direct and indirect effects of variables that influence turnover intentions. Explore internal and external factors on an individual's performance and satisfaction. This case study will define qualitative relationships between each variable. Specifically, the objectives of this study are the following:

1. Define the variable relationships that affects an individual's intent years to stay applicable in manufacturing industries in Calamba Philippines.
2. Build a relationship model using SEM between each variable applicable in manufacturing industries in Calamba Philippines.

This scope of this study is to analyze factors applicable in manufacturing industries in Calamba Laguna, Philippines. Outside workplace characteristics from other locations can affect the result of this study and can be verified by future studies. This study will only tackle job characteristics and work characteristics that are present in the manufacturing industries. Other industry set-ups such as sales and services will have different factor relationships and can be verified through future studies.

2. Methods

2.1. Participants

Three hundred seven participants were selected at random and invited to participate in a survey for this case study. The survey is an electronically generated form that is installed on the participant's respective desktop or laptop. The population of the industrial organization considered for this case study was composed of 34 managers, 52 engineers, 107 technicians and 162 operators as of July 2019. A total of 121 responded from the survey with 51% male and 49% female. Job title distribution composed of 44% operators, 29% of engineers, and 27% technicians. Tables 1 and 2 elaborates the distribution of the respondents.

Table 1. Data Demography on Educational Attainment and Job Title.

Row Labels	College Grad	College Undergrad	High School Grad	Vocational	Grand Total
Engineer	32		1	1	34
Operator	19	7	18	12	56
Technician	15	2	1	13	31
Grand Total	66	9	20	26	121

Table 2. Data Demography on Gender and Job Department.

Row Labels	Equipment Eng'g	Process Eng'g	Product Eng'g	Production	Quality	Total
Female	4	8	3	36	10	61
Male	43	5	3	7	2	60
Total	47	13	6	43	12	121

There are enough respondents for each category to satisfy Creswell's (2008) suggestion of 5 to 25 cases for each category. However, some detailed breakdown such as a High School Grad at an Engineer position are not enough. Ann E. K. Um Yin (2009) noted that due to the nature of the case study approach, "the typical criteria regarding sample size are irrelevant." Yin (2009) specified that the researcher should rather focus on getting information on the various aspects of the case. Creswell (2013) notes that this is, in reality, getting different perspectives on the phenomenon under study. Creswell (2013) calls this sampling process (purposeful maximal variation).

2.2. Data Gathering

The participants were provided an executable program that opens the electronically generated survey form. This program is a custom made specifically for this case study. It was developed using C# programming language using Visual Studio ©. The same software retrieves the most recent quarterly performance report of the participant. After retrieving the performance report, it is encoded onto the program. The program acts as a survey form that stores information to a locally secured Microsoft SQL database.

All information that can be verified from human resource database are gathered by the software. Department, job title, educational attainment, and other demographic data are encoded. Numeric ranking of educational attainment was adapted from Hindin (2005). Hindin implied the use of the Philippine Department of Education's hierarchy of educational attainment. Elementary graduates were having a score of 1 while a master's degree holder at a score of 5. This study used a five-item scale to measure of overall performance from 1 to 5 developed by Price and Mueller (1981). Any score equal to or higher than four is considered a top performer. The reliability of this scale was 0.75 to 0.94, based on a previous study done by Mansour-Cole & Scott (1998). The software survey then asks the participants to measure the effects of the following retention programs and reasons for turnover from 1 to 10. Each factor was explained in detailed by the person in charge before the participant answer the survey. Entries from the software survey were adapted from the elements defined by Hackman (2019) that affect turnover intentions. This study will use these as controllable factors that organization can create programs to address turnover issues. Turnover intentions will be measured by an individual's intent years to stay.

The participants were asked to encode their own assessment of their skills and performance. Skills and performance rating helped verify if there is a relationship between a worker's perceptions of their performance against their intended years to stay. The participants also encode their current intended years to stay in the organization and the rating of their job satisfaction. The same program also retrieves the latest actual quarterly performance report of the participants. The performance report used a scale of 1 to 5 recommended by Price and Mueller (1981).

2.3. Statistical Analysis

Variables with highest mean values tend to have the most impact on turnover intentions. The average intent years to stay and job satisfaction can be described using mean values. Standard deviation described the spread of distribution of each variable. However, mean and standard deviation cannot define relationships of each variables. Thus, a table of correlation was generated using regression. The table of correlation described the magnitude and direction of

relationships between each variable. Two variables with a test of hypothesis p-value < 0.05 are considered to have a significant relationship. Variables with significant relationship were identified to have an influence with one another. Minitab© software was used to generate mean, standard deviation and regression analysis. However, indirect effect of variables cannot be studied using simple regression. Indirect effects of variables will be analysed using structural equation modeling.

Structural Equation Modelling (SEM) is a widely used multivariate statistical analysis technique for analysing structural relationships (Anderson and Gerbing, 1988). SEM defines multiple dependence in a single analysis (Bentler and Chou, 1987). Narshadi and Shahbazi (2013) used SEM to describe the dependency of emotional exhaustion on other factors that affect turnover intentions. This study used AMOS 22 with a maximum likelihood estimation approach. AMOS 22 is a credible software used for SEM which is utilized by various researchers (Jain and Raj, 2016; Lin et al., 2019). Resulting model from SEM are compared to the results from related literatures.

The SEM model used educational attainment, job title and tenure as independent variables for this study. The impact of educational attainment on an individual's intent years to stay is already verified by multiple research (Wisk and Weitzman, 2017). However, this study will ascertain if the same relationship applies to an organization in Calamba Philippines. The impact of educational attainment with other variables such as job performance and satisfaction lack research to support the hypothesis. The job title is ranked with the lowest at the operator level and highest at the managerial level. Tenure is defined as an individual's running duration of stay. This study also used months as a unit of tenure.

Unobserved variables were adapted from Hackman (2019) which defines job characteristics, workplace characteristics and, outside workplace characteristics as factors that may directly or indirectly affect an individual's intended years to stay. Intervention programs that may change an individual's perception of job characteristics are promotion plan programs, job rotation (competency), salary increase and schedule rearrangement. Intervention programs that may affect an individual's opinion of workplace characteristics are management to employee relationships, work environment, training, recognition programs, and mentorship. Intervention programs that may change an individual's perception of outside workplace characteristics are car support, vacation support, educational support and housing support (Hackman, 2019). Job performance may also have a direct or indirect effect on an individual's intent years to stay. Findings and recommendations from previous studies were used to generate a model of hypothesis.

3. Results and Discussion

3.1. Mean and Standard Deviation

The resulting data on intended years to stay are summarized in table 3. Mean and standard deviation were measured using Minitab©.

Table 3. ANOVA of Intent Years to Stay

Variable	Category	Sample Size	P-Value	Group	Mean	Standard Deviation
Gender	Male	60	0.245	A	9.950	6.700
	Female	61		A	11.377	6.748
Job Title	Engineer	34	0.042	A	8.412	6.724
	Technician	56		A, B	10.839	6.743
	Operator	31		B	11.946	6.282
Educational Attainment	College Graduate	66	0.002	A	8.409	5.705
	Vocational	26		A, B	11.923	6.817
	High School Graduate	20		B	14.550	7.316
	College Undergraduate	9		B	15.000	6.123
Department	Process Eng'g	13	0.027	A	7.2308	7.154
	Product Eng'g	6		A, B	8.167	2.228
	Equipment Eng'g	47		A, B	9.872	6.592
	Quality Assurance	12		B	11.500	6.987
	Production	43		A, B	12.698	6.656

Labor Type	Indirect	32	0.065	A	8.719	6.906
	Direct	89		A	11.371	6.570
Civil Status	Single	77	0.348	A	10.260	6.638
	Married	44		A	11.386	6.918

4.

Results of categorical breakdown on an individual's intended years to stay shows that male employees have the tendency of shorter period of intended years to stay at an average of 9.95 years while female employees have average intended years to stay at 11.37 years. Both categories have a standard deviation of 6.7 that explains a widespread in the response of both. Although there is a 1.32 years difference on the average intended years to stay, the 2 samples t-test show that the two variables have no statistically significant difference with each other at P = 0.245. Thus, most retention programs in general should not be gender biased (Grissom, Nicholson-Crotty and Keiser, 2012). There are other demographic factors that influences intended years to stay such that differs from one group to another such as Job Title.

Different job titles have a statistically different response to intended years to stay with a one-way Anova P-value of 0.042. Engineers have the shortest average intended years to stay at 8.41 years while technicians and operators have the longest average intended years to stay at 10.84 years and 11.95 years, respectively. Standard deviation of each category is around 6.7 that suggests a widespread in the response of participants. Results suggest that there is a decreasing trend in intended years to stay as an individual gain higher job title position. Thus, retention programs should be more focused on individuals with higher job title position. Similarly, different educational attainment has a statistically different response to intended years to stay with a one-way Anova P-value of 0.002. College graduates has the lowest response on intended years to stay at 8.409 years. The results follow a trend that decreases intended years to stay as the individual's educational attainment increases with college undergraduates as an exemption. College undergraduates have the highest intended years to stay at 15 years.

Results also shows that different department have a statistically different response to intended years to stay with a one-way Anova P-value of 0.027. Each department has its own difference in work nature that may not be suited for most workers. Process engineering department has the least response to intended years to stay at 7.23 years. Process engineering category also has the lowest response among all categories. Review of process engineering work nature and scope is highly recommended for manufacturing organizations. Hiring of process engineering workers should be reinforced to ensure that the individual is highly suited for the job. The department with the highest response to intended years to stay is production with an average 12.70 years. Both labour type and civil status have statistically insignificant difference in mean for each category with a P-value on two sample t-test of 0.065 and 0.348, respectively. Relationships between variables further roots out the significant variables that affects intended years to stay.

Day and time records of the accident are also statistically significant concerning accident criticality. Thus, we accept hypothesis 4 that states the significant difference between accident criticality among different days. Also, we accept hypothesis 5 that indicates the significant difference between accident criticality among different time groups. Wednesday is the safest day to drive. Wednesday has the least amount of road traffic accident records (N=641) and the lowest value of accident criticality (M=1.93, SD=1.21). The criticality level of accidents on Wednesday is statistically different (p=0.028) with Tuesday (M=2.16, SD=1.33). Weekly events happening during Tuesday and Wednesday should be investigated. This can be the basis to which the government can implement vehicle coding policies for a safer drive. One-way ANOVA result for a time of accident shows that that morning drive has the lowest criticality record (M=2.00, SD=1.28). There is no significant difference between the criticality of accidents in the morning compared to accidents at early night (M=2.06, SD=1.30) and in the afternoon (M=2.09, SD=1.34).

However, the criticality of accidents in the morning is statistically different (p=0.005) compared to the criticality of accidents at late night (M=2.19, SD=1.39). Based on the time-based result, the government can impose time-related traffic laws like truck bans at a specific period.

Lastly, results show that there is no statistical difference (p=0.082) on the criticality of the accident regardless of what road vehicle is involved. Thus, we reject hypothesis 6 that states a significant difference in accident criticality among different vehicle types. However, truck-related accidents are the most critical (M=2.43, SD=1.51). Motorcycle related accidents, on the other hand, are the least critical accidents on the road (M=2.06, SD=1.32). Even if motorcycle-related accidents are prevalent (N=4798), it does not necessarily indicate those motorcycle accidents are critical and fatal. Most motorcycle accidents resulted in minor injuries.

3.2. Correlation Analysis

Recognition has the highest mean value (6.95) among other controllable variables. Trainings (6.87) and Salary Growth (6.36) closely follow Recognition as an effective retention program. Recognition also has the least standard deviation (3.51) that explains less deviation on the respondents answer from the mean. However, test of hypothesis between the relationship of Recognition and Intent Years to Stay show that there is no significant relationship between them. However, since Recognition has the highest score among retention program, the effect of Recognition in Intent Years to Stay could have been indirect.

Intent Years to Stay are affected by the following variables; Job Title (r=-0.21*), Educational Attainment (r=-0.38**), Job Performance (r=0.20*) and Job Satisfaction (r=0.26*). Table 3 shows that controllable variables such as trainings or recognition does not have a statistically significant relationship on Intent Years to Stay. However, variables that have a statistically significant relationship Intent Years to Stay like Job Performance and Job Satisfaction are dependent variables. Trainings shows a statistically significant relationship with Job Performance (r=0.25*). Recognition shows a statistically significant relationship with Job Satisfaction. Thus, controllable variables affect Intent Years to Stay indirectly.

Results also identified that Trainings have a statistically significant relationship with Job Title. The impact of controllable variables is also affected by independent variables. The impact of controllable variables is to be broken down using one-way Anova and two-sample t-test to identify different response from different groups. Indirect relationships between variables were further analyzed through structural equation modelling.

3.3. Structural Equation Modeling

The initial result of SEM includes all relationships with a statistical p-value greater than 0.05. As suggested by Heir et al., relationships of these factors are statistically insignificant. Figure 1 shows the initial model generated by SEM.

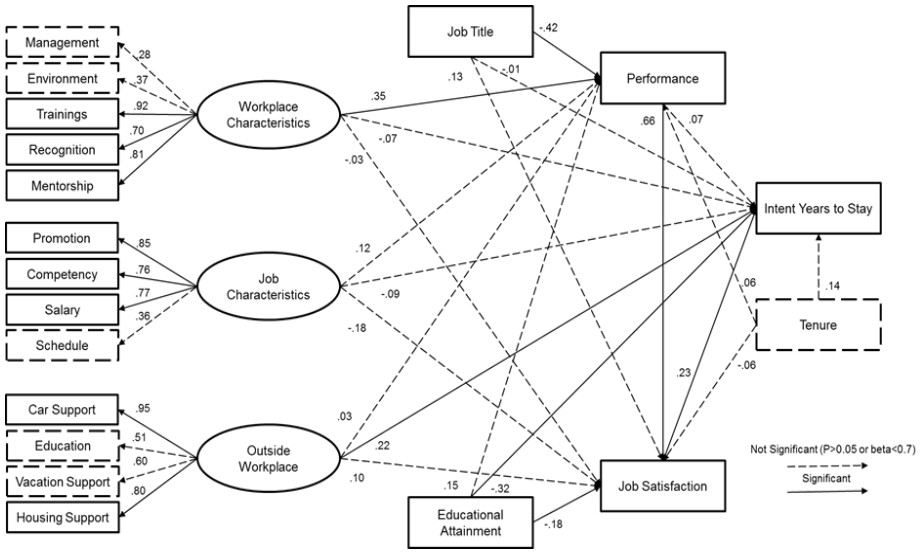

Fig. 1. Initial SEM Model

The initial SEM result highlight that the trust in management and work environment have an insignificant effect on an employee's perception on workplace characteristics. The result of this study contradicts the result of McKnight et. al., (2009) that highlights that trust in management reflects the strongest in workplace context. However, McKnight's study focused more on an IT industry. There are a lot of difference that has affected on the perception of management in a manufacturing industry. This study showed other factors in workplace characteristics have more weight than other variables. The culture in a manufacturing industry in the Philippines prefer trainings and mentorship to boost their perception of workplace characteristics. Moreover, education and vacation support have no significant effect on an employee's perception on outside workplace characteristics. Car support and housing support outweighs other factors. Results suggest that manufacturing industry in the Philippines prefer tangible support from the management.

The result also shows that tenure did not show any significant relationship with job satisfaction, performance, and intent years to stay. The result agrees with McKnight et, al., (2009) that shows that time in position does not affect turnover intention. Regardless of an individual's tenure, the decision of staying in the organization lies in other factors. With all the insignificant factors removed, another SEM model is generated.

The final SEM model shows a good fit to describe the relationship of each factors. The test of parameter index and goodness fit shows that the model best describes the relationship of each factor. P-value for Chi-Square of 0.164 (>0.05 suggested by Heir et. al., 2010) indicates that there are no significant different between the data and the model. Useful Fit Index (GFI) at 0.908 (>0.90 suggested by Heir et al. (2010) shows that the model has a good fit. With a verified good fit, the final SEM model is presented in Fig. 2.

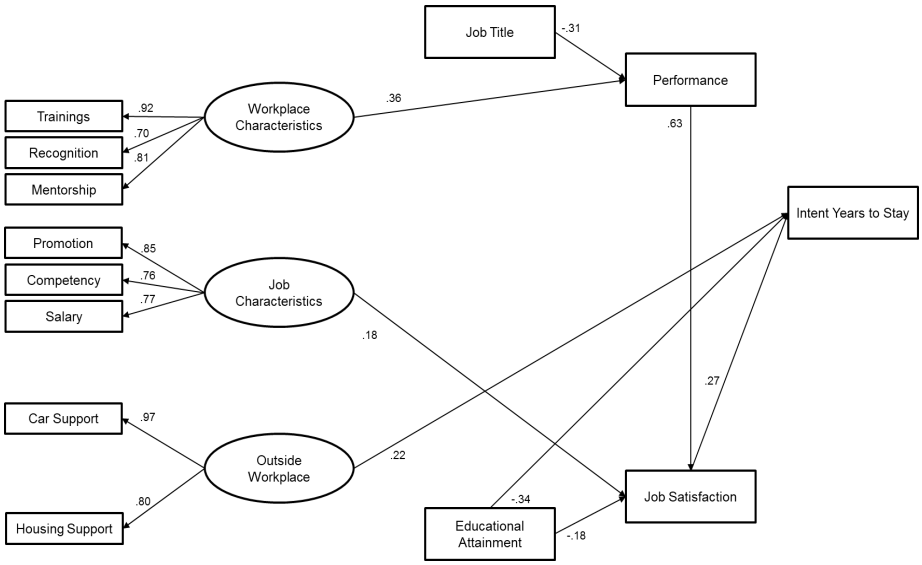

Fig. 2. Final SEM Model

The final SEM result shows that Intent Years to Stay has a strong inverse relationship with Educational Attainment (p=0.001, β=-0.34). Highly educated individuals are more likely to stay in the organization for a shorter period. According to Wisk and Weitzman (2017), individuals with higher levels of educational attainment have higher expectations compared to what their current organization can provide. The job satisfaction of these individuals also decreases because of unmet expectations.

The SEM result shows the same inverse relationship between educational attainment and Job Satisfaction (p=0.049, β=-0.18). Thus, individuals with higher educational attainment tend to jump to other organizations in a short period. These individuals tend to seek an organization that would meet their expectations (Wisk and Weitzman, 2017).

Job Satisfaction is a strong indicator of an individual's Intent Years to Stay (p = 0.001, β=0.27). This result is supported by multiple research (Yuen et al., 2018; Hanaysha and Tahir, 2016; Castellaci and Bardolet 2019). Job satisfaction is a positive emotional state from an individual's work experience (Deshpande, 2014).

Employees tend to reciprocate their satisfaction through organizational commitment (Yang, 2019). Job Satisfaction is directly affected by both Job Characteristics (p=0.05, β=0.18) and Performance (p=0.001, β=0.63). According to Locke (1972), good performance boosts job satisfaction since it can be translated as a desirable intrinsic and extrinsic reward. For some, job satisfaction has been associated with job performance (Karatepe, 2012).
Job performance has an indirect effect on an individual's intent years to stay through job satisfaction. The capability of an individual to have a good performance is affected by Workplace Characteristics (p<0.001, β=0.36) and Job Title (p=***, β=-0.31). An individual's perception of workplace characteristics can be improved through programs which are; Training (β=0.92), Mentorship (β=0.81) and Recognition (β=0.70). Training is the best indicator of an individual's perception of workplace characteristics (Chiang et. al., 2005).

Training empowers employees to perform better by being efficient and effective. It also boosts an employee's sense of career growth. (Hanaysha and Tahir, 2019). However, organizations should also consider mentorship and recognition programs to boost workplace characteristics. A study by Hanaysha and Tahir (2015) showed a significant positive effect of workplace characteristics on job satisfaction. However, the SEM model shows that the effects of workplace characteristics on job satisfaction are indirect effects mediated by Performance. Training, Mentorship and Recognition without impact on performance do not affect job satisfaction. Job Title also has an inverse relationship with performance. Employees gain a sense of achievement as they climb to higher job titles (Lazear and Rosen, 1981; Rosen, 1986; Chan, 1996; Kwon, 2006). Thus, the pressure to perform better decreases as the employees gain satisfaction with their job titles.
Job Satisfaction is directly affected by Job Characteristics ($p=0.05$, $\beta=0.18$). Interventions under Job Characteristics are Promotion chances ($\beta=0.85$), Competency relevant to the current job ($\beta=0.76$), and Salary increase ($\beta=0.77$). Promotion gives an individual a sense of accomplishment and growth that boosts their satisfaction (Dachner, 2019).

4. Discussion

An employee's workplace turnover can be prevented through understanding the variables that affects their decision to stay (Chiang and Birtch, 2010; Wang and Zhang, 2017). Counter actions or retention programs can be created from the variable that significantly affects an employee's intended years to stay.

4.1. Recognition

This study identified that Recognition is a controllable variable with the highest impact on turnover intentions averaging at 6.95. Standard deviation of recognition is also the lowest at 3.57 that indicates a tighter distribution of result.

A random respondent is most likely to agree with the resulting mean of recognition. The result of the final SEM also shows that recognition programs has an indirect effect on intended years to stay. The effect of recognition programs is mediated through job satisfaction (Ronen and Zuroff, 2017). Thus, improving recognition not only increase an individual's intended years to stay, but also increases an individual's job satisfaction. The employees' desire to satisfy their need for affirmation and recognition outweighs their need for tangible material such as car and housing supports. Arshadi and Shebazi (2013) emphasizes role of emotional exhaustion in turnover intentions. Arshadi and Shebazi's (2013) study built a model describing that emotional exhaustion outweighs the workplace characteristics.

Emotional exhaustion triggers emotional detachment and defensive behaviour to avoid further exhaustion (Hobfoll and Shirom, 2000). The perceived lack of organizational justice acts as a stimulus to enhance individual's behavioural intentions. Recognition programs prevent individual's emotional exhaustion from building up. The sense of affirmation gives justice to an individual's self-evaluation (Arshadi and Shebazi 2013). However, the effect of recognition as a retention program varies for each demographic category. Approach on how to address retention programs should be different from each category. Table 4 summarizes the resulting response of each individual groups to the effectiveness of recognition as a retention program.

Table 4. ANOVA on the Ratings of Recognition

Variable	Category	Sample Size	P-Value	Group	Mean	Standard Deviation
Gender	Female	61	0.001	A	5.868	3.883
	Male	60		B	8.050	2.696
Job Title	Operator	31	0.001	A	5.589	3.956
	Technician	56		B	7.741	3.021
	Engineer	34		B	8.470	3.925
Educational Attainment	High School Graduate	20	0.024	A	4.700	3.921
	Vocational	26		A, B	6.576	3.848
	College Undergraduate	9		A, B	6.888	3.586
	College Graduate	66		B	7.787	2.937
Department	Quality Assurance	12	0.001	A	4.833	4.217
	Production	43		A, B	5.720	3.923
	Process Engineering	13		A, B	7.923	1.934

Equipment Engineering	47	B	8.127	2.817
Product Engineering	6	B	8.666	1.505

Table 4 highlights male workers to have a higher need for recognition averaging at 8.05 compared to female workers at 5.87. The difference between the respond of both genders are statistically significant with a two-sample t-test P-value of 0.001. Standard deviation of male response is also lower than female response, which suggests that majority of the male sample population agrees with the mean result.

Creating separate recognition programs for male and female workers may seem unethical. However, recognition comes in many other forms. Instead of recognition events, organization should address this issue being more sensitive to male recognition needs through verbal affirmation that their good work is acknowledged by the management (Ronen and Zuroff, 2017). Similarly, job title plays a role on an individual's need for recognition. Operator has a statistically different mean response (P=0.001) on recognition (m=5.59) than from the response of technicians (m=7.74) and engineers (8.47). Job characteristics with non-repetitive work tends to decrease burnout through job feedbacks (Mcknight et. al., 2009).

Operators also has a non-varying skill on their job characteristics that explains why they do not prefer recognition as a retention program. Most organizations implemented recognition events for individuals with skills variety. Getting recognize in such events reduces burnouts and also inspire other of what can be achieved. Similarly, different educational attainment has a statistically significant difference in their response to recognition needs. However, since there is a strong correlation (r=0.55) between educational attainment and job title. Higher educational attainment leads to a higher job title. Thus, recognition programs applicable to different job titles are applicable to different educational attainment. That is, to implement recognition programs.

4.2. Trainings

This study identified trainings as the second highest mean value from controllable variables and second lowest in standard deviation. The result of SEM also shows that training programs has an indirect effect on intended years to stay. The effect of training programs is mediated through job satisfaction (Chiang et. al., 2005). Thus, improving recognition not only increase an individual's intended years to stay, but also increases an individual's job satisfaction. Hanaysha and Tahir (2016) studied the effects of employee training on job satisfaction. They concluded that trainings are one of the most demanded organizational programs because of positive effect on job satisfaction.

Trainings is considered an important and effective tool to successfully accomplish organizational objectives (Leppel et al., 2012; Chiang et al., 2005). Training programs for workers not only increase the ability of an individual to perform better but it also decreases individual's tendency to seek other organisation (Ruhose et. al., 2019). However, the need for training programs may vary from different categorical groups. Table 5 summarizes the breakdown of each category on training as a retention program.

Table 5. ANOVA on the Ratings of Trainings

Variable	Category	Sample Size	P-Value	Group	Mean	Standard Deviation
Gender	Female	61	0.002	A	5.852	4.016
	Male	60		B	7.900	2.832
Job Title	Operator	31	0.001	A	5.232	3.954
	Engineer	34		B	8.088	3.048
	Technician	56		B	8.483	1.997
Educational Attainment	High School Graduate	20	0.33	A	5.600	3.789
	Vocational	26		A	6.615	3.522
	College Undergraduate	9		A	6.666	3.500
	College Graduate	66		A	7.378	3.585
Department	Quality Assurance	12	0.001	A	4.666	4.271
	Production	43		A, B	5.232	3.914
	Product Engineering	6		B, C	7.666	2.943
	Equipment Engineering	47		C	8.340	2.639

	Process Engineering	13		C	8.615	1.850
Labor Type	Indirect	32	0.601	A	6.562	3.934
	Direct	89		A	6.977	3.509

Table 5 highlights that training programs have more impact on Male workers. The difference between the responses on training as a retention program is statistically significant with P-value at 0.002. Male workers in manufacturing industries has an average of 7.90 rating while female workers have an average of 5.85 rating on the impact of training as a retention program. Similarly, the response of operators on the impact of training as a retention program is different than engineer and technicians (p=0.001). The difference in the response of varying job title is expected because of concentration of gender specific employees per job title. Operators are composed of 76% female while technicians are composed of 97% male. There is no statistical difference between on the effect training as a retention programs among employees with different educational attainment. However, employees with a college degree are most affected by training programs.

Difference of the effect of training on different department lies on the work nature of different departments. Departments such as quality assurance and production has a manual type of work which is less likely to engage in employer-induced trainings (Ruhose et. al., 2019). On the other hand, departments such as process engineering which requires high analytical skills are most likely to engage in training programs (Van Ingen and Van der Meer, 2011; Janmaat and Green 2013). Organizations need only to focus on providing training as a retention program some organization.

4.3. Outside Workplace

Outside Workplace retention programs have a direct effect on Intent Years to Stay (p=0.015, β=0.22). Retention programs that are significant to outside workplace perception are Car Support (β=0.97) and Housing Support (β=0.80). Belgiawan et al (2014) studied car purchase motivations. There is a difference between car ownership intentions between developing and developed countries. From the developing countries, the symbolic significance of a car weighs overs income and environment factors. Car owners have their sense of power and dominance (Miller, 2001). Organizations in developing countries such as the Philippines, should consider Car Support over Housing Support as a retention program. However, since outside workplace characteristics are often costly, not all organization should be quick to implement car or housing support. There is a concentration in groups who prefers outside workplace characteristics. Table 6 and 7 summarize the response of different groups on the effectivity of car and housing support.

Table 6. ANOVA on the Ratings of Car Support

Variable	Category	Sample Size	P-Value	Group	Mean	Standard Deviation
Gender	Female	61	0.041	A	4.525	4.411
	Male	60		B	6.083	3.863
Job Title	Operator	31	0.001	A	4.125	4.382
	Technician	56		A	5.129	4.048
	Engineer	34		B	7.382	3.248

Table 7. ANOVA on the Ratings of Housing Support

Variable	Category	Sample Size	P-Value	Group	Mean	Standard Deviation
Gender	Female	61	0.784	A	5.721	4.410
	Male	60		A	5.933	3.863
Job Title	Technician	56	0.001	A	4.709	4.283
	Operator	31		A	5.428	4.520
	Engineer	34		B	7.500	3.126

Table 6 shows that car support has a statistically different impact between each category. Car support are most effective among male employees with an average rating of 6.08 compared to average rating of female employees at 4.52. The difference between male and female workers on the effectiveness of car support is statistically significant of P-value of 0.041. For organizations with a majority of male employees, pursuing car support is highly encouraged.

Car support has the biggest impact to outside workplace characteristics with housing support that closely follows. Pursuing outside workplace retention program has a direct impact on intent years to stay. Outside workplace characteristics gives individuals a sense of work-life balance which removes burnout and invites employees to stay (Mcknigh et. al., 2009).

Job Title also plays a critical role on both car support and housing support. Engineers have a statistically different response to car and housing support than technicians and operators with a one-way Anova P-value of 0.001. Engineers tends to appreciate retention programs that address outside workplace characteristics. Since the impact of car support to an individual's intent years to stay is higher and costs fewer resources compared to housing support, it is highly recommended to pursue car support in organizations with a large population of engineers or male employees.

5. Conclusion

This study generated a model using SEM that defined relationship of various factors on an individual's intent years to stay. An individual's intent years to stay was used to determine an individual's turnover intention. Results show that tenure has no significant effect on an individual's intent years to stay. Educational attainment, job satisfaction, and outside workplace characteristics show a significant impact on an individual's intent years to stay. Individuals with higher educational attainment tend to jump to other organizations for a shorter period. These individuals have higher expectations that are often unmet by their current organization.

Job satisfaction is a reliable indicator of an individual's intent years to stay. Satisfied individuals tend to have a stronger commitment to their current organization. Job satisfaction is profoundly affected by job performance and job characteristics. An excellent performance in an organization is treated as a reward that boosts an individual's satisfaction. Job performance indirectly affects an individual's intent years to stay through job satisfaction. Organizations can boost job performance through training, mentorship, and recognition. Among these three programs, trainings are the most effective program to increase job performance. However, recognition and mentorship are also significant factors that organizations should consider. Results show that job title has an inverse relationship with job performance. As an individual gain higher rank titles, the pressure to perform better decreases as they gain a sense of accomplishment of reaching new ranks.

Outside workplace characteristics have a direct effect on an individual's intent years to stay. Significant intervention programs that affect and individual's perception of outside workplace characteristics are car support and housing support. Car support has a higher positive effect on an individual's perception of outside workplace characteristics compared to housing support. Developing countries treat car ownership as a symbol of social status. This makes car support as a form of retention program effective.

The organization should focus its resources on retention programs that change an individual's perception of job characteristics. Job characteristics have an indirect effect on an individual's intent years to stay. It also affects job performance and job satisfaction that boost productivity in the organization.

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