EnPress

Article

Determinants of employee turnover intentions from Malaysia's manufacturing sector in north region of Malaysia

Tam Car Mun[1], Asokan Vasudevan[2,*], Puspanathan Doraisingam[2], Anantha Raj A. Arokiasamy[2], Huimin Fan[3], Lester Naces Udang[3], Vasumathi Arumugam[4]

[1] Carsem Malaysia Sdn. Bhd. Jalan Lapangan Terbang, P.O. Box 204, Ipoh 30720, Perak, Malaysia

[2] Faculty of Business and Communications, INTI International University, Persiaran Perdana BBN, Putra Nilai, Nilai 71800, Negeri Sembilan, Malaysia

[3] Faculty of Liberal Arts, Shinawatra University, 99 Moo 10, Bangtoey, Samkhok, Pathum Thani 12160, Thailand

[4] VIT Business School, VIT University, Vellore 632014, Tamil Nadu, India

* Corresponding author: Asokan Vasudevan, asokan.vasudevan@newinti.edu.my

Abstract: This study addresses the critical issue of employee turnover intention within Malaysia's manufacturing sector, focusing on the semiconductor industry, a pivotal component of the inclusive economy growth. The research aims to unveil the determinants of employee turnover intentions through a comprehensive analysis encompassing compensation, career development, work-life balance, and leadership style. Utilizing Herzberg's Two-Factor Theory as a theoretical framework, the study hypothesizes that motivators (e.g., career development, recognition) and hygiene factors (e.g., compensation, working conditions) significantly influence employees' intentions to leave. The quantitative research methodology employs a descriptive correlation design to investigate the relationships between the specified variables and turnover intention. Data was collected from executives and managers in northern Malaysia's semiconductor industry, revealing that compensation, rewards, and work-life balance are significant predictors of turnover intention. At the same time, career development and transformational leadership style show no substantial impact. The findings suggest that manufacturing firms must reevaluate their compensation strategies, foster a conducive work-life balance, and consider a diverse workforce's evolving needs and expectations to mitigate turnover rates. This study contributes to academic discourse by filling gaps in current literature and offers practical implications for industry stakeholders aiming to enhance employee retention and organizational competitiveness.

Keywords: turnover intention; compensation and rewards; career development; work-life balance; training; leadership style; inclusive economic growth

1. Introduction

Retaining staff is a top priority for businesses in today's competitive business world to guarantee profitability and continued success (Belete, 2018). Human resource expenses and general competitiveness are significantly impacted by employee turnover, especially turnover intention, or an employee's propensity to leave (Ahmad, 2022; Wan and Duffy, 2022). According to Kamalaveni et al. (2019), a company's reputation is harmed by high staff turnover, making it more difficult to acquire talent. This study aims to close current research gaps in Malaysia's manufacturing sector. The results are significant in helping firms devise and execute plans to boost staff retention and preserve a robust competitive advantage.

Organizations have a major problem with employee turnover driven by personal, environmental, and organizational factors (Belete, 2018; Li et al., 2019). Excessive

turnover disrupts operations and results in financial and human resource expenditures (Kurniawaty et al., 2019; Wan and Duffy, 2022). Although employees are drawn to other locations by better prospects (Amin, 2022), it is imperative to retain talent (Davis, 2020). Employee turnover, influenced by personal, environmental, and organizational factors (Belete, 2018), poses a significant challenge for organizations (Li et al., 2019). High turnover incurs financial and human resource costs (Kurniawaty et al., 2019; Wan and Duffy, 2022) and disrupts operations. While better opportunities elsewhere attract employees (Amin, 2022), retaining talent is crucial (Davis, 2020).

Beyond financial compensation, factors like career development, work-life balance, and leadership style impact turnover intention (Valenti, 2019). Organizations with well-designed compensation and reward systems foster employee satisfaction (Taufek et al., 2019). Additionally, career development opportunities enhance motivation and engagement (Rahman and Syahrizal, 2019). Furthermore, work-life balance, often valued by modern generations, contributes to emotional well-being (Jaharuddin and Zainol, 2019). Finally, effective leadership styles are vital for creating a positive work environment and fostering teamwork (Maaitah, 2018; Masood et al., 2020). Understanding these factors is crucial for organizations with evolving needs and expectations in today's diverse workforce (Naim and Lenka, 2018; Singh, 2019).

2. Literature review

The semiconductor manufacturing industry has played a pivotal role in Malaysia's economic growth, particularly since the 1970s when the country emerged as a hub for electrical and electronics (E&E) activities, notably in semiconductor assembly and testing plants. Malaysia has become a major semiconductor manufacturing hub in the Asia Pacific region (NST Business, 2023). In 2022, approximately 32.64 billion semiconductors were produced in Malaysia, marking the highest output in the past decade, contributing 4.6 percent to the country's GDP in 2021 (Statista, 2022). Recognizing the significance of the semiconductor manufacturing segment, Malaysia International Trade and Industry named it one of the most crucial components of the electrical and electronics industry in 2023 (Free Malaysia Today, 2023). Malaysia holds the second position globally in exporting semiconductor devices, with the United States, Singapore, Germany, and South Korea being the top destinations for Malaysia's semiconductor exports in 2021 (Reogma, 2021). The Malaysian government has actively supported the semiconductor industry, offering incentives for foreign investment, infrastructure development, and research and development initiatives (MATRADE, 2022). Multinational semiconductor companies like Skyworks, Intel, AMD, Analog Devices, and Infineon have made significant investments and established manufacturing facilities in Malaysia (Subramaniam et al., 2019). This support has contributed to Malaysia's position as a major semiconductor manufacturing hub in Asia, further boosting economic growth.

The government's vision to transform Malaysia into a developed and industrialized country involves attracting foreign investors, particularly in the electrical and electronic (E&E) industry. Efforts have been made to position Malaysia as a key manufacturing hub in Asia, focusing on retaining and hiring a talented workforce to maintain competitiveness in the market (Ooi and Teoh, 2021). The

semiconductor industry's success has been crucial in advancing Malaysia's industrialization goals and economic development.

Work-life balance has the biggest impact on turnover intention, according to Ling and Omar (2022), Long (2014), and Triningsih and Sri Darma (2023). The study's conclusions show that varying degrees of influence, leadership style, career development, and pay and benefits all significantly impact turnover intention. Their composite reliability scores highlight the relative importance of these elements. Notably, work-life balance gets the highest value (0.917), demonstrating its critical importance. Comparatively, the composite dependability scores for leadership style, career development, and salary and rewards are 0.829, 0.865, and 0.894, respectively. This data demonstrates that, although each of these criteria is important, work-life balance is the most important factor in determining the desire to leave, followed equally and closely by the other factors.

2.1. Turnover intention

Employee turnover intention, a pervasive concern for organizations globally, poses challenges to productivity and profitability. It is a crucial human resource issue, with voluntary and involuntary forms impacting organizational stability and growth (Belete, 2018; Lazzari et al., 2022). In Malaysia, turnover intention is a significant concern, affecting company performance and competitiveness (Chin, 2018). Lack of motivation and decreased performance contribute to intentional job quitting (Ooi and Teoh, 2021). High turnover rates result in substantial costs related to induction, training, and employee development, underscoring the importance of retaining a skilled workforce (Hosen, 2022).

The Malaysian manufacturing sector, particularly the semiconductor industry, grapples with high voluntary turnover rates despite predictions of an economic slowdown in 2023 (Huong, 2023). Over half of electrical and electronics (E&E) firms are actively recruiting to address talent shortages. The Malaysia Semiconductor Industry Association (MSIA) reports challenges in attracting new talent, with more than half of semiconductor firms anticipating turnover rates exceeding 10% (Huong, 2023). In 2017, Malaysia's manufacturing sector experienced a 12.8% voluntary turnover rate, surpassing the median of 10% in major Asia-Pacific markets (Aon Hewitt, 2019). The electronic and electrical industry ranked second in the region for voluntary turnover, posing challenges to manufacturing output and supply chains (Ooi and Teoh, 2021). Research across seven Asian countries reveals that Malaysian employees are less likely to recommend their companies, and approximately 36% are likely to leave within two years, indicating a critical turnover issue (Subramaniam et al., 2019). The manufacturing industry's fast-paced environment contributes to higher turnover intentions than other sectors (Ooi and Teoh, 2021).

2.2. Compensation

In today's work landscape, fair compensation—including both financial rewards and benefits—is crucial for employee retention and satisfaction (Anku, 2018; Verma, 2018). Effective compensation practices, encompassing security, incentives, and employee acceptance, lead to employee loyalty, higher job performance, and lower

turnover intentions (Vizano et al., 2021; Taahir et al., 2020). Herzberg's Two-Factor Theory emphasizes the importance of both extrinsic rewards (pay, benefits, recognition) and intrinsic rewards (sense of belonging, growth) for employee motivation (Siruri and Cheche, 2021). It highlights the importance of appreciating employees' contributions to increase job satisfaction and reduce turnover (Obiaga and Johnson, 2021; Thant and Chang, 2021).

Studies in Malaysia highlight the need for proper financial compensation to combat employee turnover and improve performance (Amin, 2022; Taahir et al., 2020). Additionally, the evolving reward system in Malaysian organizations reflects a growing concern about the impact of turnover on productivity (Hassan, 2022). Organizations must adapt their compensation practices to meet industry standards and employee expectations to retain performance and satisfaction (Amin, 2022). The emphasis on financial incentives in Malaysia underscores the crucial role of compensation in employee engagement and organizational contribution (Saputra and Suwandana, 2022).

H1: Compensation and Rewards have a positive influence on Turnover Intention.

2.3. Career development

Career development is a formal strategy businesses employ to ensure they have a skilled workforce capable of meeting organizational needs (Dewi and Nurhayati, 2021). It involves enhancing employees' work skills, encouraging them to plan their careers, and promoting lifelong learning (Firman, 2021; Zacher and Froidevaux, 2021). Equal skill and ability development opportunities are crucial, aiming to reduce employee turnover by fostering employee productivity and loyalty (Dewi and Nurhayati, 2021; Niati et al., 2021).

Career development is seen as a process facilitating individual skill enhancement for desired career outcomes, requiring support from organizational leaders (Rahman and Syahrizal, 2019). From the organizational perspective, it encourages maximum self-development, motivating employees to pursue long-term careers within the company (Zacher and Froidevaux, 2021). Top management support is essential for employee career development, serving as a significant tool for motivating and retaining skilled employees (Davis, 2020). Employees who perceive a promising future within the company are likely to be more engaged and less inclined to leave (Hee and Rhung, 2019).

In alignment with Herzberg's Two Factor theory, motivator factors like achievement, recognition, work, career growth, and advancement are crucial in motivating employees and improving retention (Bryant, 2018). Career development contributes to job satisfaction, engagement, and reduced turnover intention (Chin, 2018). Organizations benefit from adopting Herzberg's motivation factors to motivate employees and enhance retention (Zacher and Froidevaux, 2021).

H2: Career Development has a positive influence on Turnover Intention.

2.4. Work-life balance

In today's work environment, maintaining a healthy balance between work and personal life (work-life balance) is crucial (Tirta and Enrika, 2020; Soomro, 2018).

Studies show increasing conflict between work and personal lives, but achieving balance leads to benefits like lower employee turnover, increased productivity, and reduced absenteeism (Syara and Syah, 2022; Sahroni and Suganda, 2022). One way to promote work-life balance is through flexible work arrangements and supportive workplace policies, as Dousin et al. (2019) and Kabir et al. (2022) suggested. These measures improve employee well-being and satisfaction and contribute to lower turnover rates. Work-life balance significantly impacts younger generations' decisions to stay or leave their jobs, particularly in Malaysia, as they prioritize personal time and community involvement (Hee and Ann, 2020).

Reducing employee turnover is a key organizational objective, and Ahmad (2019) suggests fostering work-life balance with friendly policies to enable employees to manage work, personal life, and other responsibilities effectively. Cultivating a work culture that supports work-life balance benefits organizations by retaining valuable employees, strengthening family relationships, reducing employee stress, and promoting overall well-being (Dousin et al., 2019). The imbalance between work and personal life is linked to increased stress and higher turnover intentions (Jaharuddin and Zainol, 2019).

Herzberg's Two Factors Theory positions work-life balance as a hygiene factor impacting job satisfaction and turnover intentions. Positive work-life balance practices lead to higher employee satisfaction, while poor working conditions that hinder work-life balance decrease satisfaction and increase turnover intentions (Afnisyaa and Aulia, 2022; Andersson, 2017; Prasad and Karumuri, 2018). While work-life balance allows employees to express their full selves (physically, mentally, and emotionally), maintaining this balance can be challenging. Increasing job demands can lead to work-family conflicts, decreased job commitment, and heightened mental stress (Akter et al., 2019; Putra et al., 2020).

H3: Work-Life Balance has a positive influence on Turnover Intention.

2.5. Leadership

Leadership style is crucial in achieving organizational goals, with each leader exhibiting unique behaviors in influencing subordinates. It encompasses a leader's methods, behavior patterns, skills, traits, and attitudes to encourage job satisfaction, performance, and motivation (Ichsan et al., 2021). Effective leadership is essential for organizational success, involving directing efforts, coping with changes, and achieving the mission and vision (Al Khajeh, 2018).

Herzberg's Two Factor Theory links leadership style to motivation, emphasizing the importance of motivators in creating a work environment that fosters growth opportunities and recognition. In alignment with Herzberg's motivators, transformational leadership focuses on inspiring and creating a positive work environment that enhances employee motivation, satisfaction, and retention (Bastari et al., 2020).

In Malaysia, transformational and transactional leadership styles are prominent, each yielding different outcomes. Transformational leadership proves more effective for employee engagement, performance, and retention, enhancing motivation, efficiency, creativity, and overall organizational performance. On the other hand,

transactional leadership is found to impact job satisfaction positively (Ebrahim et al., 2022; Islam et al., 2018).

Transformational leadership is vital in today's dynamic organizational environment, focusing on inspiring motivation, intellectual stimulation, and promoting innovation (Shah et al., 2020). Transformational leaders emphasize work standards, nurturing values, and considerations for team members. They identify followers' potential, encouraging them to reach their fullest capabilities and inspiring them to go beyond their limits to achieve organizational goals (Arokiasamy and Tat, 2020; Ismail and Mydin, 2019). Transformational leaders foster trust and honesty through two-way communication, incorporating four elements: intellectual stimulation, idealized influence, individual consideration, and inspirational motivation (Ahmad et al., 2019; Mahzan and Nordin, 2021).

H4: Leadership Style (Transformational) has a positive influence on Turnover Intention.

2.6. Theoretical justification

Theoretical justification in this study incorporates Herzberg's Two Factor Theory, which identifies motivator and hygiene factors influencing employee turnover. Motivator factors lead to satisfaction, including achievement, recognition, work, career growth, and advancement. In contrast, hygiene factors, such as relationships, salary, company policy, and working conditions, cause dissatisfaction (Bryant, 2018). Previous research emphasizes the relevance of job motivation and satisfaction to employee retention, with Herzberg's theory forming the basis for understanding motivational constructs affecting turnover intention (Chiat and Panatik, 2019). The study applies Herzberg's theory to independent variables, associating motivator factors with company pay, rewards, career development, and effective leadership, while compensation and work-life balance relate to hygiene factors. The findings suggest that the absence of either motivator or hygiene factors increases the risk of higher turnover intention among employees (Chiat and Panatik, 2019; Hossan et al., 2022). Referring to the theories and relevant literature, a research framework is initiated to examine the relationship between the independent and dependent variables. The independent variables in this research framework are Compensation and Rewards, Career Development, Working Life Balance, and Leadership Style (Transformational). The dependent variable in is employee turnover intention. **Figure 1** shows the display of this framework:
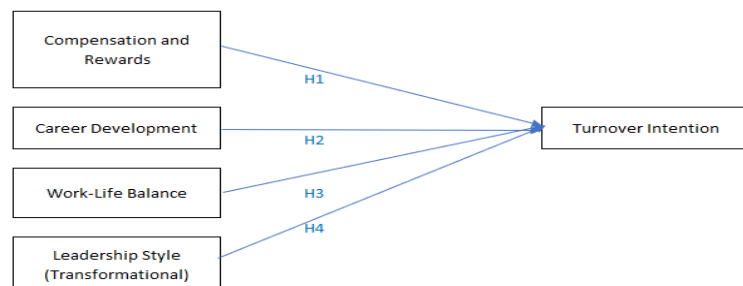

Figure 1. Conceptual framework.

Source: Creation by the author.

3. Research methodology

This study examines factors influencing employee turnover intention in the manufacturing industry. The research uses a quantitative approach with a descriptive correlation design to analyze the correlation between independent variables. In this study, descriptive correlation design is used to investigate and verify the presence or non-existence of a correlation between the independent variables and the dependent variable were used in this study. The target respondents are all executives and managers who have worked for over a year at a semiconductor firm in northern Malaysia. The sample design was based on non-probability sampling processes. The population of this study was 5260 employees who are working in semiconductor firms. Based on the company's record, the study's respondents are all executives and managers with approximately 1250 employees. The purpose to selecting all the executives and managers who worked more than a year as the target population in this study can be beneficial and contribute good results in various ways; the executives and managers are typically more expertise about the organization's operations, goals, and the strategies which they could provide valuable insights and opinions which are crucial in making decisions. Besides, the executives and managers usually significantly influence the key decisions within the organization, often representing different levels and functions. A total of 350 questionnaires were distributed, and 278 responses were received. For this study, the turnover intention instrument and Career Development were adapted from Firman (2021); Compensation and rewards were adapted from Hassan (2022); Work-Life Balance was adapted from Putri and Amran (2021), and Leadership Style was adapted from Makambe and Moeng (2020). Questionnaires, created using Google online survey forms, are distributed via email and social media platforms for convenient sampling. The questionnaire was assessed using a Five-Point Likert Scale (from strongly disagree = 1 to strongly agree = 5). Smart-PLS version 4.0 software was utilized to run the analysis for this study. This study obtained ethical approval from INTI International University's Faculty of Research & Ethics committee.

3.1. Ethical approval

The researchers involved human participants and hence obtained ethical approval for this study. All data were collected according to INTI International University's Faculty Research & Ethics Panel guidelines, and the approval number is INTI/UEC/2024/006. This committee is transparent in its functioning, independent of the researcher, and its members are duly qualified. After the end of the study, the researcher submitted the final report to the committee containing a summary of the study's findings and conclusions. The researchers have taken measures to protect the privacy of research updates and the confidentiality of the personal information of the targeted respondents.

3.2. Informed consent

The researchers informed the purpose of the study and received consent from target respondents, who were all interested and gave information voluntarily to be

considered as target respondents. The researchers have received verbal approval from target respondents for the study.

4. Result

4.1. Pilot test

A pilot test was conducted to determine the feasibility of the research. A sample size of 30 was used to run the pilot size test. The result of the reliability test of the pilot study is shown in **Table 1** below.

Table 1. Reliability test.

Variables	Cronbach's Alpha	Number of items
Turnover Intention (Dependent Variable)	0.942	5
Compensation and Rewards (Independent Variable)	0.830	5
Career Development (Independent Variable)	0.840	6
Work Life Balance (Independent Variable)	0.931	8
Leadership Style (Transformational) (Independent Variable)	0.904	5

Cronbach's Alpha for both dependent and independent variables show the results range from 0.830 to 0.942. According to the classification made by Gottems et al. (2018), if Cronbach's Alpha (α) is more than 0.70, the pilot test is reliable. The values of Cronbach's Alpha (α) of the dependent and independent variables are over 0.7, which means that the respondents' answers are reliable, and further analysis could have proceeded with all the data obtained (**Table 2**).

Table 2. Summary of response rate.

Description	Result
Total questionnaires distributed	350
Total respondent received	278
Percentages of response rate	85.7%

4.2. Response rate

In this study, a total of three hundred fifty (350) survey questionnaires were distributed electronically via WhatsApp, Facebook, email, and social media to the target respondents, which are the executives and the managers working in a semiconductor company in Ipoh. 278 respondents responded to this survey, and the response rate of this data collection is 85.7%.

4.3. Demographic profile

Based on **Table 3**, the gender distribution of respondents is depicted in **Table 4** categorized into male and female groups. The majority, constituting 66% (183

respondents), are male, while 34% (95 respondents) are female. The target audience is categorized into five age groups. The largest group is 30 to 39 years old (46.7%), followed by 40 to 49 years old (24.1%), 18 to 29 years old, 50 to 59 years old (11.2%), and the least is 60 years and above (1.8%)—respondents' marital status, classified as single, married, and others. The majority, 61.3% (170 respondents), are single, followed by married at 37.3% (103 respondents), and others at 1.3% (4 respondents). There are five income groups; Ringgit Malaysia 5000 to Ringgit Malaysia (RM) 7499 is the largest at 39% (109 respondents), followed by Ringgit Malaysia (RM) 2500 to Ringgit Malaysia (RM) 4999 (22%), Ringgit Malaysia 7500 to Ringgit Malaysia (RM) 9999 (17.7%), Ringgit Malaysia (RM) 10000 above (14.3%), and the smallest group less than Ringgit Malaysia (RM) 2499 (6.7%). The educational levels of respondents are presented. The majority hold a bachelor's degree (66.7%), followed by a diploma (13.7%), master's degree (11%), SPM/STPM (Malaysia Certification of Education/Higher School of Certificate) (5.3%), doctorate (3%), and others (0.3%). Respondents' years of working experience are divided into six groups. The largest group, with 41.3% (115 respondents), has 6 to 10 years of experience, followed by 11 to 15 years (20.3%), 1 to 5 years (13%), 16 to 20 years (12.7%), above 20 years (29 respondents), and the smallest group, less than 1 year, accounts for 3% (8 respondents).

Table 3. Respondents demographic profile.

		Frequency	**Percent**
Gender	Male	183	66
	Female	95	34
Age	18–29	45	16.2
	30–39	130	46.7
	40–49	67	24.1
	50–59	31	11.2
	60 and above	5	1.8
Marital Status	Single	170	61.3
	Married	103	37.3
	Others	4	1.4
Income Level (monthly)	Less than RM2499	18	6.7
	RM2500-RM4999	61	22
	RM5000-RM7499	109	39.3
	RM7500-RM9999	49	17.7
	RM10,000 and above	40	14.3
Education Status	SPM/STPM	14	5.3
	Diploma	38	13.7
	Bachelor's Degree	185	66.7
	Master's Degree	31	11
	Doctorate Degree	8	3
	Others	1	0.3

Table 3. (*Continued*).

		Frequency	Percent
	Less than 1 year	8	3
	1–5 years	36	13
Years of Working Experience	6–10 years	115	41.3
	11–15 years	56	20.3
	15–20 years	35	12.7
	Above 20 years	29	9.7

Table 4. Loadings of all constructs-measurement model.

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Compensation and Rewards (CR)	CR1	0.745			
	CR3	0.788	0.691	0.829	0.619
	CR4	0.825			
Career Development (CD)	CD1	0.721			
	CD2	0.751			
	CD3	0.748	0.805	0.808	0.562
	CD4	0.795			
	CD5	0.731			
Work-Life Balance (WLB)	WLB2	0.786			
	WLB3	0.765			
	WLB4	0.807	0.892	0.895	0.649
	WLB5	0.830			
	WLB6	0.814			
	WLB7	0.829			
Transformational (T)	T2	0.721			
	T3	0.782			
	T4	0.783	0.851	0.853	0.628
	T5	0.844			
	T6	0.827			
Turnover Intention (TI)	TI1	0.794			
	TI2	0.824			
	TI3	0.809	0.847	0.855	0.620
	TI4	0.785			
	TI5	0.720			

In addition to Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) for each construct, **Table 4** displays loadings for each item under various constructs. The choice to remove some items because their loadings were less than 0.7 is consistent with standard procedure in construct-based research, which aims to guarantee that every item accurately reflects the underlying construct it is intended to assess. Items CR2 and CR5 from the "Compensation and Rewards (CR)" construct were eliminated during the study's fine-tuning the measurement model

because their loadings were less than 0.7, indicating that these items did not sufficiently contribute to the construct's representation. Similarly, item CD6 from the "Career Development (CD)" construct was eliminated because its loading was less than 0.7, indicating that it did not accurately represent the intended construct. Items T1 from the "Transformational" construct and WLB1 and WLB8 from the "Work-Life Balance (WLB)" construct were removed because their loadings were less than 0.7, indicating a weak contribution to the corresponding constructs. The measurement model's validity, or the measurement's ability to measure what it is supposed to measure accurately, and reliability, or the consistency of the measurement, depend heavily on this methodical removal of items with low loadings. The study purposefully improves the quality and integrity of its findings by sticking to a benchmark requiring all items to have loadings above a generally acknowledged threshold of 0.7, guaranteeing that the constructs are reliably and accurately represented (See **Figure 2** of the graphic mode above).
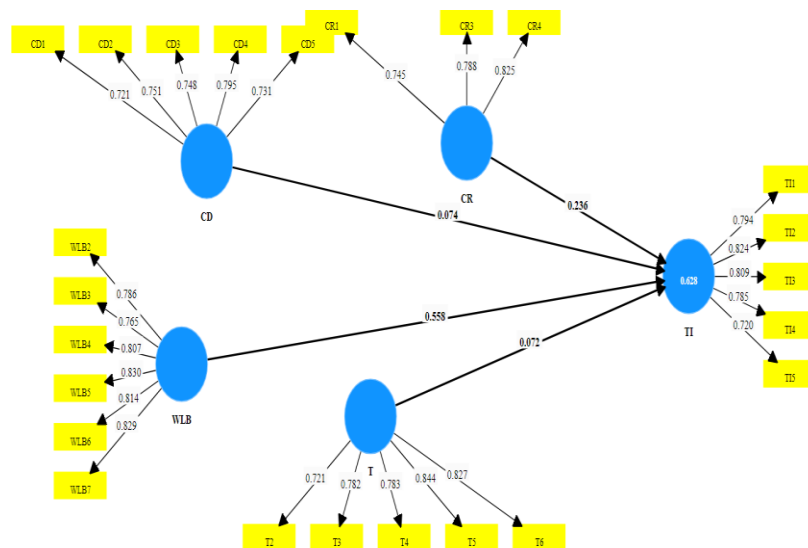

Figure 2. Graphic model of the loadings.

Table 5 offers a thorough summary of the validity and reliability of five constructs that are essential to evaluating the measurement's quality within the study: Work-Life Balance (WLB), Career Development (CD), Compensation and Rewards (CR), Transformational Leadership (T), and Turnover Intention (TI). Cronbach's Alpha, a measure of internal consistency, shows values between 0.691 (CR) and 0.892 (WLB), indicating a range from mediocre to exceptional consistency levels among items within each construct. In general, Cronbach's Alpha thresholds of 0.7 or higher are considered satisfactory, indicating that there is sufficient relationship between the items within each construct. Additionally, by assessing each item's contribution, the study uses Composite dependability (rho_and rho_c) to dig deeper into the constructs' dependability. Like Cronbach's Alpha values, the rho_a values vary slightly yet remain consistent while evaluating reliability. The rho_c values, which are consistently higher—ranging from 0.829 (CR) to 0.917 (WLB)—emphasize the variance related to the actual score in relation to the total variance, undermining the constructs' ability to be measured with reliability. Furthermore, the Average variation Extracted (AVE),

whose values range from 0.562 (CD) to 0.649 (WLB), measures the variation that a construct captures relative to the variance caused by measurement error. Satisfactory convergent validity is shown by constructs that, on average, account for more variance than that assigned to measurement error, as indicated by an AVE threshold of 0.5 or higher.

Table 5. Construct reliability and validity.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Career Development (CD)	0.805	0.808	0.865	0.562
Compensation and Rewards (CR)	*0.691*	0.697	0.829	0.619
Transformational (T)	0.851	0.853	0.894	0.628
Turnover Intention (TI)	0.847	0.855	0.890	0.620
Work-Life Balance (WLB)	0.892	0.895	0.917	0.649

The study's constructs show acceptable to high levels of validity and reliability overall. The strong internal consistency and reliability among the constructs are attested to by the Cronbach's Alpha and Composite Reliability indices. Furthermore, the AVE metrics support the validity of the constructs by confirming that a sizable portion of the variance seen in the variables is, in fact, explained by the structures they are intended to measure. As a result, **Table 5** provides strong evidence for the effectiveness of the measurement model in effectively expressing the theoretical components being examined.

4.4. Discriminant validity

Using the HTMT matrix, **Table 6** shows the study's constructs' discriminant validity evaluation. One of the most important aspects of evaluating the measurement model is discriminant validity, which is the extent to which items measure various concepts or differentiate between conceptions. By contrasting the mean of the item correlations inside a concept with the mean of the item correlations across constructs, the HTMT is a relatively new method for evaluating discriminant validity. Five constructs are displayed in the matrix in paired comparisons: Work-Life Balance (WLB), Career Development (CD), Compensation and Rewards (CR), Transformational Leadership (T), and Turnover Intention (TI). The values indicate the HTMT ratio between each pair of constructs. For example, the high degree of distinctiveness is indicated by the HTMT score of 0.741 between CD and CR. The value, which is typically regarded as 0.85 or 0.90, is somewhat near to the threshold, though, which may indicate a lack of discriminant validity. Other pairings' ratios, such as T and TI (0.582) and WLB and CD (0.580), indicate that the constructs assess distinct concepts and point to better discriminant validity. These numbers are also well below the threshold.

Table 6. Discriminant validity-heterotrait-monotrait ratio (HTMT)—Matrix.

	CD	**CR**	**T**	**TI**	**WLB**
CD					
CR	0.741				
T	0.584	0.669			
TI	0.619	0.754	0.582		
WLB	0.580	0.617	0.558	0.845	

The value of 0.845 between TI and WLB, which is extremely close to the threshold, is an important finding from the matrix. This implies that although discriminant validity exists, it is not as strong as it is for other pairs of constructs. This may indicate that Turnover Intention and Work-Life Balance have a closer conceptual relationship, or it may point out areas that need more research to understand how these two notions differ conceptually fully. Overall, the HTMT matrix in **Table 6** shows that the constructs are distinct and measure various ideas as intended, demonstrating discriminant validity among the constructs. Additional research and careful interpretation may be necessary to guarantee that distinct conceptual boundaries are preserved, as shown by the close-to-threshold results for some construct pairs.

4.5. R-square

The R-square and adjusted R-square values for Turnover Intention (TI) in the study's model are shown in **Table 7**. The R-square, sometimes referred to as the coefficient of determination, shows how much of the variance in the dependent variable can be explained by the independent variables in the model. In this instance, the R-square value of 0.628 (see **Figure 2**) indicates that roughly 62.8% of the variance in Turnover Intention can be explained by the predictors included in the model. This is a significant percentage, suggesting that the model can explain turnover intention well. To account for the number of predictors in the model, the adjusted R-square value, which is 0.622, modifies the R-square value slightly. This modification is crucial because a model's R-square value can be falsely inflated by including additional predictors, giving the impression that the model is better than it is. The modified R-square is a more precise indicator of the model's explanatory ability, particularly when contrasting models with varying numbers of predictors. The model is suitably described in this instance, and the proximity of the R-square and adjusted R-square values indicates that the number of predictors has no unwarranted effect on the model's explanatory capacity.

Table 7. R-square.

	R-square	**R-square adjusted**
TI	0.628	0.622

P-values of 0.000 for both CR → TI and WLB → TI in the table indicate statistically significant effects on Turnover Intention, implying strong evidence against the null hypothesis and suggesting that Work-Life Balance and Compensation and Rewards have a significant impact on Turnover Intention. Strengthening the

conclusions of this study are the T statistics for these connections, which are similarly quite high (5.058 for CR → TI and 12.027 for WLB → TI). On the other hand, *P*-values for CD → TI and T → TI are higher than the usual significance threshold, at 0.131 and 0.112, respectively, suggesting that the impacts of Career Development and Transformational Leadership on Turnover Intention are not statistically significant in this sample. **Table 8** illustrates the importance of work-life balance, compensation, and rewards in understanding employee turnover intentions. It also shows that these factors significantly measure the turnover intention within the study's model. According to the research, enhancing pay, benefits, and work-life balance may be useful for controlling employees' intentions to leave.

Table 8. Path coefficients—Mean, STDEV, *T*-values, *p*-values.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	*P* values
CD → TI	0.074	0.073	0.049	1.511	0.131
CR → TI	0.236	0.233	0.047	5.058	0.000
T → TI	0.072	0.074	0.045	1.588	0.112
WLB → TI	0.558	0.560	0.046	12.027	0.000

H1. Compensation and rewards have a significant positive relationship with turnover intention.

The analysis reveals that career development lacks a significant correlation with turnover intention. The *t*-value of 5.058 and a *p*-value of 0.000 suggest significance. This result was consistent with the study done by Yadewani and Wijaya (2021) that concluded a lower compensation awarded to the employees would lead to a higher level of turnover intention, as the employees see compensation and rewards as an important factor to keep themselves motivated at work and considered one of the strongest motivators and would bring positive change in the work environment. Another study conducted by Jahya et al. (2020) also concluded a positive significant relationship between compensation and rewards and employee turnover intention; a generous amount of compensation and rewards given to the employees would lead to greater retention and reduce the propensity to quit the organization. The researchers acknowledged that greater compensation and rewards generally reduce employee turnover intention. We can conclude that an increase in compensation and rewards reduces employee turnover intention.

H2. Career Development has an insignificant relationship with turnover intention.

The results of the hypothesis testing showed that career development had a negative relationship and no significant influence on turnover intention in the manufacturing industry in Malaysia. The results presented in **Table 8** show there was no significant influence with a significance *p*-value of 0.131, which was more than 0.05, and the beta value of 0.074 indicated a very weak relationship between career development and the turnover intention of the employees in Malaysia's manufacturing industry.

The findings were aligned with the previous research findings from Arta (2022), which stated that career development does not significantly influence turnover intention where the employees do not see career development could influence the

decision to stay in the company with different individual goals and alignment. Moreover, there were also research findings by Umri et al. (2022) that career development did not significantly affect turnover intention; it indicated that employee career development would not impact the employee's intention to leave their job. Researchers also acknowledged that career development had no significant influence on turnover intention due to limited job opportunities and the expectations of the employee constantly changing based on the environment in terms of various factors.

H3. Work-life balance has a positive significant relationship with turnover intention.

The analysis indicates that leadership style (transformational) lacks a significant correlation with turnover intention. The t-value of 12.027 and a *p*-value of 0.000 suggest significant influence. Furthermore, the beta value of 0.558 indicates an almost weak relationship between transformational leadership style and turnover intention in Malaysia's manufacturing industry.

The findings were consistent with previous research done by Jaharuddin and Zainol (2019), where work-life balance has a somewhat significant influence on the turnover intention of the employees, if there is a higher work-life balance experience, the employees would generally have a lower intention to leave their jobs as they are happy and satisfied with the balance between their work and personal life. Additionally, the research findings conducted by Suganda (2022) also proved that the greater the work-life balance the employees experienced, the lower the intention of the employees to leave the organization. Employees tend to have multiple roles in between their work and personal life; it is often a challenge for employees to have a work-life balance in this competitive business world; when employees have a work-life balance, they intend to balance multiple roles and do not perceive their job as a burden. Hence, researchers have proven that work-life balance reduces employees' intention to leave their jobs.

H4. Leadership Style (Transformational) has no positive significant relationship with turnover intention.

The results of the hypothesis testing showed that leadership style (transformational) negatively influenced turnover intention in the manufacturing industry in Malaysia. The results presented in **Table 8** indicated no significant influence, with a *p*-value of 0.112 and a *t*-value of 1.588, which is more than 0.05 significant. The beta value of 0.072 indicates there was almost no relationship between Leadership style (transformational) and the turnover intention of the employees in Malaysia's manufacturing industry.

The findings were congruent with the previous research by Utami and Aima (2021), where the transformational leadership style showed no significant effect on turnover intention. Previous researchers argued that not all leaders practice transformational leadership as there are leaders who do not make firm decisions, which leads to rising doubts and feelings from the employees and loss of confidence towards their leaders, which eventually increases the intention to leave their jobs. Nevertheless, previous research conducted by Lacap (2019) also stated that the leaders from the supervisor level play an intensive role in providing direction in problem-solving in operations; different leadership styles adopted by the leaders could influence the confidence and motivations of the employees and resulting in positive progress

towards their work. However, not all employees intend to leave their jobs due to the transformational leadership style adopted by their leaders; this is because different individuals find effectiveness in different leadership styles.

5. Recommendation

The research proposes comprehensive recommendations to address employee turnover issues. Firstly, the compensation system's impact on turnover should be managed by regularly analyzing and adjusting it based on industry benchmarks, market rates, and employee expectations. Beyond financial incentives, organizations are urged to introduce non-financial rewards such as flexible working arrangements, company trips, and health benefits to enhance job satisfaction. A holistic approach involving total rewards packages, including retirement plans and career growth opportunities, is recommended. Recognizing the evolving expectations of the multigenerational workforce, organizations are advised to promote internal mobility, conduct regular performance reviews, and offer constructive feedback to enhance employee engagement. Work-life balance is identified as crucial, and the study recommends implementing flexible work arrangements, encouraging the use of off days, and promoting a culture supporting personal time off. Wellness programs, including fitness classes and mindfulness sessions, should be initiated to support employees' physical and mental well-being. Transparent communication between management and employees is emphasized, aiming to align everyone with company goals and strategies. Lastly, leadership involvement through mentorship programs is encouraged to provide guidance and support to employees in their daily tasks, fostering a positive work environment and reducing turnover.

5.1. Theoretical implications

Moreover, this research serves as a substantial contribution to the academic realm by addressing lacunae evident in prior studies and offering profound insights into the determinants shaping employee turnover intention within the Malaysian manufacturing milieu. By delineating the interconnectedness of compensation, career development, work-life balance, and transformational leadership with turnover propensity, this study enriches scholarly comprehension of organizational dynamics. Furthermore, the incorporation of Herzberg's Two-Factor theory augments theoretical underpinnings, fostering a nuanced understanding of motivational factors and their implications on turnover phenomena within the manufacturing sector of Malaysia.

5.2. Practical implications

Within the industry, this study underscores the critical issue of elevated employee turnover rates, which hold significant ramifications, particularly within Malaysia's manufacturing sector—an integral component of the nation's GDP. The elucidated findings serve as a beacon, enlightening firms on pivotal turnover determinants, thereby facilitating strategic enhancements and potentially assuaging prevailing economic apprehensions. The ensuing recommendations proffer pragmatic solutions, empowering Malaysian manufacturing entities to adeptly confront identified

challenges and curtail turnover rates, fostering organizational stability and sustainable growth.

5.3. Limitations of the study

Only four variables were examined due to time constraints, explaining 63% of turnover intention in Malaysian manufacturing. Future research should explore additional factors contributing to turnover. Focusing on a single firm limits the representativeness of the Malaysian manufacturing industry, reducing generalizability. Reliance on questionnaires may restrict respondents, lacking the flexibility for nuanced responses. Closed-ended questions limit quantitative insights, potentially missing the complexity of issues. These limitations suggest avenues for future research to enhance comprehensiveness, generalizability, and qualitative exploration in understanding employee turnover in the manufacturing industry.

5.4. Conclusion

This research centered on a semiconductor manufacturing firm situated in Ipoh, Malaysia, delving into the factors shaping employee turnover intention. Surveys were administered to managers and executives, revealing that compensation, rewards, and work-life balance emerged as notable determinants of turnover intention, whereas career development and transformational leadership exhibited no discernible influence. Drawing from a diverse array of scholarly articles to ensure a comprehensive understanding, the study enlisted the participation of 300 individuals and leveraged SPSS for robust data analysis.

The research findings underscore the imperative for manufacturing enterprises to prioritize compensation, rewards, and work-life balance enhancements as strategic avenues for mitigating turnover rates. Furthermore, advocating for future investigations to integrate qualitative and quantitative methodologies, the study culminates with a thorough discussion encompassing findings, scholarly contributions, actionable recommendations, and acknowledgment of research constraints.

References

Ahmad, J. (2022). Factors influencing employees' turnover intention in Malaysia: A review of the literature. International Journal of Advanced Research, 10(7), 187-193.

Ahmad, N., Mohamad Nor, N.B.A., Ghazali, M., Abd Razak, S. and Moultone, N.H., (2019). Transformational leadership style and its relation to employees Integrity: findings from the study of government agency in Malaysia. Academic Journal of Business and Social Sciences (AJoBSS), 3, pp.1-13.

Akter, A., Hossen, M.A. and Islam, M.N., (2019). Impact of work life balance on organizational commitment of university teachers: Evidence from Jashore University of Science and Technology. International Journal of Scientific Research and Management, 7(04), pp.1073-1079.

Al Khajeh, E.H., (2018). Impact of leadership styles on organizational performance. Journal of Human Resources Management Research, 2018, pp.1-10.

Amin, B.M., (2022). The Effect of Financial and Non-Financial Rewards On Executives' Performance In Manufacturing Firms: A Case Study At Kulim-Hi Tech Park, Kulim, Kedah, Malaysia. International Journal of Innovation and Industrial Revolution (Ijirev), Pp.13-27.

Andersson, S., (2017). Assessing job satisfaction using Herzberg's two-factor theory: A qualitative study between US and Japanese insurance employees. IAFOR Journal of Business & Management, 2(1), pp.22-35

Anku, J.S., Amewugah, B.K. and Glover, M.K., (2018). Concept of reward management, reward system and corporate efficiency. International Journal of Economics, Commerce and Management, 6(2), pp.621-637.

Arokiasamy, A. and Tat, H., (2020). Exploring the influence of transformational leadership on work engagement and workplace spirituality of academic employees in the private higher education institutions in Malaysia. Management Science Letters, 10(4), pp.855-864.

Ayob, A. L., & Mat Nor, N. (2019). Predictors of employee engagement in Malaysia, and the moderating effects of job demands and total reward. Asian Academy of Management Journal, 24(Supp. 2), 33–491

Baker, B., & Zuech, L. (2022, March 31). The great resignation is real. Here's what data tells us about the record surge in U.S. job quitting. SHRM. https://www.shrm.org/topics-tools/news/talent-acquisition/the-great-resignation-is-over-quits-rate-falls

Basias, N. and Pollalis, Y., (2018). Quantitative and qualitative research in business & technology: Justifying a suitable research methodology. Review of Integrative Business and Economics Research, 7, pp.91-105

Bastari, A., Eliyana, A. and Wijayanti, T., (2020). Effects of transformational leadership styles on job performance with job motivation as mediation: A study in a state-owned enterprise. Management Science Letters, 10(12), pp.2883-2888.

Belete, A.K., (2018). Turnover intention influencing factors of employees: An empirical work review. Journal of Entrepreneurship & Organization Management, 7(3), pp.1-7.

Belete, M. (2018). The impact of leadership styles on employee turnover intention: A case of Ethiopian Commercial Bank. Journal of Business and Management, 20(2), 142-152.

Bown, C.P., (2020). How the United States marched the semiconductor industry into its trade war with China. East Asian Economic Review, 24(4), pp.349-388.

Bryant, O.A., (2018). Employee turnover in the long-term care industry using Herzberg's motivation-hygiene theory. International Journal of Academic Research in Business and Social Sciences, 8(4), pp.57-76.

Chen, T.C., Guo, D.Q., Chen, H.M. and Wei, T.T., (2019). Effects of R&D intensity on firm performance in Taiwan's semiconductor industry. Economic research-Ekonomska istraživanja, 32(1), pp.2377-2392.

Chiat, L.C. and Panatik, S.A., (2019). Perceptions of employee turnover intention by Herzberg's motivation-hygiene theory: A systematic literature review. Journal of Research in Psychology, 1(2), pp.10-15

Chin, C.L., (2018). The influence of job satisfaction on employee turnover intention in the manufacturing industry of Malaysia. Journal of Arts & Social Sciences, 1(2), pp.53-63.

Davis, P.J., (2020). Implementing an employee career-development strategy: How to build commitment and retain employees. Human Resource Management International Digest.

Dewi, R.S. and Nurhayati, M., (2021). The effect of career development on turnover intention with job satisfaction and organizational commitment as mediators, study at PT Control Systems Arena Para Nusa. European Journal of Business and Management Research, 6(4), pp.11-18.

Dewi, R.S. and Nurhayati, M., (2021). The effect of career development on turnover intention with job satisfaction and organizational commitment as mediators, study at PT Control Systems Arena Para Nusa. European Journal of Business and Management Research, 6(4), pp.11-18.

Dörnyei, Z. and Dewaele, J.M., (2022). Questionnaires In Second Language Research: Construction, Administration, And Processing. Taylor & Francis.

Dousin, O., Collins, N. and Kler, B.K., (2019). Work-life balance, employee job performance and satisfaction among doctors and nurses in Malaysia. International Journal of Human Resource Studies, 9(4), pp.306-319.

Ebrahim, Z.B., Hafidzuddin, S.A., Sauid, M.K., Mustakim, N.A. and Mokhtar, N., (2022), October. Leadership Style and Quality of Work Life among Nurses in Malaysia during the COVID-19 Pandemic Crisis. In Proceedings (Vol. 82, No. 1, p. 99). MDPI.

Firman, A., (2021). The Effect of Career Development on Employee Performance at Aswin Hotel and Spa Makassar. Journal Management Business, 8(1), pp.133-146.

Flynn, J. (2023). 10 Largest Semiconductor Companies In The World – Zippia. [online] zippia. Available at: https://www.zippia.com/advice/largest-semiconductor-companies-world/#:~:text=Which%20country%20is%20the%20largest. [Accessed 20 Apr. 2023].

Harknett, K., Schneider, D. and Storer, A. (2021). Early Career Workers in the Service Sector. [online] The Shift Project. Available at: https://shift.hks.harvard.edu/early-career-workers-in-the-service-sector/#:~:text=The%20service%20sector%20comprises%2017 [Accessed 24 Apr. 2023].

Hassan, Z., (2022). Employee retention through effective human resource management practices in Maldives: Mediation effects of compensation and rewards system. Journal of Entrepreneurship, Management and Innovation, 18(2), pp.137-174.

Hee, O.C. and Ann, Y.S., (2019). Factors influencing employee turnover in the food manufacturing industry in Malaysia. International Journal of Academic Research in Business and Social Sciences, 9(1), pp.482-491.

Hee, O.C. and Jing, K.R., (2018). The Influence of human resource management practices on employee performance in the manufacturing sector in Malaysia. International Journal of Human Resource Studies, 8(2), pp.129-147.

Hee, O.C. and Rhung, L.X., (2019). Motivation and employee retention among millennials in Malaysia. International Journal of Academic Research in Business and Social Sciences, 9(2), pp.876-884.

Hosen, M.E., (2022). Factors affecting employee turnover in multinational companies in Malaysia. Malaysian Management Journal, 26, pp.31-54.

Huang, I.C., Du, P.L., Wu, L.F., Achyldurdyyeva, J., Wu, L.C. and Lin, C.S., (2021). Leader–member exchange, employee turnover intention and presenteeism: the mediating role of perceived organizational support. Leadership & Organization Development Journal, 42(2), pp.249-264.

Huang, P.L., Lee, B.C. and Chen, C.C., (2019). The influence of service quality on customer satisfaction and loyalty in B2B technology service industry. Total Quality Management & Business Excellence, 30(13-14), pp.1449-1465.

Huong, T. (2023). Big demand for skilled workers in E&E sector. [online] The Star. Available at: https://www.thestar.com.my/business/business-news/2023/02/22/big-demand-for-skilled-workers-in-ee-sector [Accessed 22 Apr. 2023].

Ichsan, R.N., Nasution, L., Sinaga, S. and Marwan, D., (2021). The influence of leadership styles and organizational changes on employee performance with an environment work as an intervening variable at pt. Bank sumut binjai branch. Journal of Contemporary Issues in Business and Government, 27(2).

Islam, M.A., Jantan, A.H., Rahman, M.A., Hamid, A.B.A., Mahmud, F.B. and Hoque, A., (2018). Leadership styles for employee empowerment: Malaysian retail industry. Journal of Management Research, 10(4), pp.27-40.

Islam, M.A., Jantan, A.H., Yusoff, Y.M., Chong, C.W. and Hossain, M.S., (2020). Green Human Resource Management (GHRM) practices and millennial employees' turnover intentions in tourism industry in malaysia: Moderating role of work environment. Global Business Review, p.0972150920907000

Ismail, A. and Mydin, A.A., (2019), March. The impact of transformational leadership and commitment on teachers' innovative behaviour. In 4th ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2018) (pp. 426-430). Atlantis Press.

Jaharuddin, N.S. and Zainol, L.N., (2019). The impact of work-life balance on job engagement and turnover intention. The Southeast Asian Journal of Management, 13(1), p.7.

Kabir I., Gunu U., Gwadabe Z.L. (2023). Kabir I., Gunu U., Gwadabe Z.L. Journal of Family and Economic Issues, 44, 297–312.

Kaliyadan, F. and Kulkarni, V., (2019). Types of variables, descriptive statistics, and sample size. Indian Dermatology Online Journal, 10(1), p.82.

Kamalaveni, S., Govindarajan, S. & Ramprakash, R. (2019). Employee attrition prediction using data mining techniques. International Journal of Innovative Technology and Exploring Engineering (IJITEE), 8(7), 860-865.

Khakifirooz, M., Fathi, M. and Wu, K., (2019). Development of smart semiconductor manufacturing: Operations research and data science perspectives. Ieee Access, 7, pp.108419-108430.

Kurniawaty, K., Ramly, M. and Ramlawati, R., (2019). The effect of work environment, stress, and job satisfaction on employee turnover intention. Management Science Letters, 9(6), pp.877-886.

Lazzari, M., Alvarez, J.M. and Ruggieri, S., (2022). Predicting and explaining employee turnover intention. International Journal of Data Science and Analytics, pp.1-14.

Li, Y., Sawhney, R. and Tortorella, G.L., (2019). Empirical analysis of factors impacting turnover intention among manufacturing workers. International Journal of Business and Management, 14(4), pp.1-18.

Ling, T. P. and Omar, S. S. (2022). Factors Influencing Employee Retention Among Production Operators in Manufacturing Companies. Research in Management of Technology and Business, 3(1), 945-958.

Long, C. S. (2014). Examining the impact of human resource management practices on employees'. International Journal of Business and Society, 15(1), 111–126.

Maaitah, A.M., (2018). The role of leadership style on turnover intention. International Review of Management and Marketing, 8(5), p.24

Mahzan, F.A. and Nordin, N.M., (2021). The relationship between transformational leadership practiced and the level of job satisfaction among lecturers in MARA professional college, Malaysia. Asian Journal of University Education, 17(3), pp.154-161.

Makambe, U. and Moeng, G.J.M., (2020). The effects of leadership styles on employee performance: a case of a selected commercial bank in Botswana. Annals of Management and Organization Research, 1(1), pp.39-50.

Masood, S., Siddiqui, G.K., Lodhi, H. and Shahbaz, S., (2020). Effect of leadership styles on organizational citizenship behavior and employee turnover intention. Journal of Accounting and Finance in Emerging Economies, 6(2), pp.487-495.

Matrade (2022). Matrade Promotes Malaysia's Capabilities in Semiconductor Industry at SEMICON West 2022 - MATRADE. [online] www.matrade.gov.my. Available at: https://www.matrade.gov.my/en/about-matrade/media/press-releases/press-releases-2022/207-press-release-2022/5703-matrade-promotes-malaysia-s-capabilities-in-semiconductor-industry-at-semicon-west-2022 [Accessed 20 Apr. 2023].

Mohajan, H.K., (2020). Quantitative research: A successful investigation in natural and social sciences. Journal of Economic Development, Environment and People, 9(4), pp.50-79.

Naim, M.F. and Lenka, U., (2018). Development and retention of Generation Y employees: a conceptual framework. Employee Relations.

Niati, D.R., Siregar, Z.M.E. and Prayoga, Y., (2021). The effect of training on work performance and career development: the role of motivation as intervening variable. Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 4(2), pp.2385-2393.

Obiaga, J.C. and Johnson, S.O., (2021). Reward system and employee performance in the oil and gas industry in River's state. International Journal of Innovative Science And Research Technology, 6(7).

Ooi, T.P. and Teoh, K.B., (2021). Factors affecting the turnover intention among employees in Penang manufacturing industry. Annals Of Human Resource Management Research, 1(1), pp.29-40.

Prasad Kotni, V.V. and Karumuri, V., (2018). Application of Herzberg Two-Factor Theory Model for Motivating Retail Salesforce. IUP Journal of Organizational Behavior, 17(1).

Putri, A. and Amran, A., (2021). Employees work-life balance reviewed from work from home aspect during COVID-19 Pandemic. International Journal of Management Science and Information Technology, 1(1), pp.30-34.

Rahman, A. and Syahrizal, S., (2019), April. Effect of compensation and career development on turnover intention: Job satisfaction as a mediation variable. In 2nd Padang International Conference on Education, Economics, Business and Accounting (PICEEBA-2 2018) (pp. 187-193). Atlantis Press.

Rajendran, S., (2021). Improving the performance of global courier & delivery services industry by analyzing the voice of customers and employees using text analytics. International Journal of Logistics Research and Applications, 24(5), pp.473-493.

Sahroni, H. and Suganda, U.K., (2022). Effect of Work Life Balance and Organizational Commitment on Turnover Intention of Employees of PT. Santosa Adi Perkasa. Kontigensi: Jurnal Ilmiah Manajemen, 10(1), pp.113-121.

Saputra, I.W.A. and Suwandana, I.G.M., (2022). Employee Engagement and Compensation on Employee Turnover Intention at a Local Café and Bar in Bali, Indonesia. European Journal of Business and Management Research, 7(1), pp.329-332.

Seeram, E., (2019). An overview of correlational research. Radiologic Technology, 91(2), pp.176-179.

Shrestha, N., (2021). Factor analysis as a tool for survey analysis. American Journal of Applied Mathematics and Statistics, 9(1), pp.4-11.

Shukla, S. (2020). Research Methodology and Statistics. Ahmedabad: Rishit Publications.

Singh, D., (2019). A literature review on employee retention with focus on recent trends. International Journal of Scientific Research in Science and Technology, 6(1), pp.425-431.

Singh, N. (2019). Generational differences in the workplace. International Journal of Business and Management, 14(3), 106-111.

Siruri, M.M. and Cheche, S., (2021). Revisiting the Hackman and Oldham job characteristics model and Herzberg's two factor theory: Propositions on how to make job enrichment effective in today's organizations. European Journal of Business and Management Research, 6(2), pp.162-167.

Soomro, A.A., Breitenecker, R.J. and Shah, S.A.M., (2018). Relation of work-life balance, work-family conflict, and family-work conflict with the employee performance-moderating role of job satisfaction. South Asian Journal of Business Studies, 7(1), pp.129-146.

Statista. (2022). Malaysia: semiconductor production 2022. [online] Available at: https://www.statista.com/statistics/719265/semiconductor-production-malaysia/#:~:text=In%202022%2C%20approximately%2032.64%20billion [Accessed 20 Apr. 2023].

Subramaniam, C., Choo, L.S. and Johari, J., (2019). What makes employees want to stay? A study in the Malaysian manufacturing sector. Global Business and Organizational Excellence, 38(5), pp.33-43.

Syara, S. and Syah, T.Y.R., (2022). The Effect of Proactive Personality, Work-Life Balance and Work Engagement on Turnover Intention. APMBA (Asia Pacific Management and Business Application), 10(3), pp.331-344.

Taahir, A.B., Ng, Y.S. and Mohd Remie, M.J., (2020). The impact of human resource management practices on employee's loyalty in Malaysia. Business and Management, 12(3), pp.79-93.

Taufek, F.H.B.M., Zulkifle, Z.B. and Sharif, M.Z.B.M., (2019). Sustainability in employment: Reward system and work engagement. Procedia Economics and Finance, 35, pp.699-704.

Thant, Z.M. and Chang, Y., (2021). Determinants of public employee job satisfaction in Myanmar: Focus on Herzberg's two factor theory. Public Organization Review, 21(1), pp.157-175.

Tirta, A.H. and Enrika, A., (2020). Understanding the impact of reward and recognition, work life balance, on employee retention with job satisfaction as mediating variable on millennials in Indonesia. Journal of Business and Retail Management Research, 14(3), pp.88-98.

Triningsih, N. N. and Sri Darma, G. (2023). Compensation, Worklife Balance, Employee Engagement, and Turnover Intention . Quantitative Economics and Management Studies 5(1), 10-21 .

Valenti, A., (2019). Leadership preferences of the millennial generation. Journal of Business Diversity, 19(1), pp.75-84.

Verma, A., (2018). Impact of Compensation and Reward System on Organization Performance: An Empirical Study. International Journal of Research and Analytical Reviews, 5(4), pp.136-140.

Vizano, N.A., Sutawidjaya, A.H. and Endri, E., 2021. The effect of compensation and career on turnover intention: evidence from Indonesia. The Journal of Asian Finance, Economics and Business, 8(1), pp.471-478.

Wan, C., & Duffy, M. K. (2022). Understanding the link between supply chain information-sharing strategies and organizational performance: the roles of vulnerability and resilience. Journal of Supply Chain Management, 58(4).

Wan, W. and Duffy, R.D., (2022). Decent work and turnover intention among new generation employees: The mediating role of job satisfaction and the moderating role of job autonomy. SAGE Open, 12(2), p.21582440221094591.

Zacher, H. and Froidevaux, A., (2021). Life stage, lifespan, and life course perspectives on vocational behavior and development: A theoretical framework, review, and research agenda. Journal of Vocational Behavior, 126, p.103476.