

Article

Human resource management practices and employee retention: Job satisfaction as a mediator in Malaysia's information technology (IT) industry

Asokan Vasudevan^{1,*}, E. Swee Yong², Anbalagan Krishnan², Rajani Balakrishnan¹, Sriganeshvarun Nagaraj¹, Navaneethakrishnan Kengatharan³, Aishath Waheeda⁴

¹ Faculty of Business and Communications, INTI International University, Nilai 71800, Malaysia

² School of Business and Administration, Wawasan Open University, Penang 10050, Malaysia

³ Faculty of Management Studies and Commerce, University of Jaffna, Thirunelvely 40000, Sri Lanka

⁴ Faculty of Education, Islamic University Maldives, Violet Magu Male' 20037, Maldives

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

CITATION

Vasudevan A, Yong ES, Krishnan A, et al. (2024). Human resource management practices and employee retention: Job satisfaction as a mediator in Malaysia's information technology (IT) industry. *Journal of Infrastructure, Policy and Development*. 8(8): 3966. <https://doi.org/10.24294/jipd.v8i8.3966>

ARTICLE INFO

Received: 3 January 2024

Accepted: 18 February 2024

Available online: 14 August 2024

COPYRIGHT



Copyright © 2024 by author(s).

Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license.

<https://creativecommons.org/licenses/by/4.0/>

Abstract: This study investigates the impact of human resource management (HRM) practices on employee retention and job satisfaction within Malaysia's IT industry. The research centered on middle-management executives from the top 10 IT companies in the Greater Klang Valley and Penang. Using a self-administered questionnaire, the study gathered data on demographic characteristics, HRM practices, and employee retention, with the questionnaire design drawing from established literature and validated measuring scales. The study employed the PLS 4.0 method for analyzing structural relationships and tested various hypotheses regarding HRM practices and employee retention. Key findings revealed that work-life balance did not significantly impact employee retention. Conversely, job security positively influenced employee retention. Notably, rewards, recognition, and training and development were found to be insignificant in predicting employee retention. Additionally, the study explored the mediating role of job satisfaction but found it did not mediate the relationship between work-life balance and employee retention nor between job security and employee retention. The research highlighted that HRM practices have diverse effects on employee retention in Malaysia's IT sector. Acknowledging limitations like sample size and research design, the study suggests the need for further research to deepen understanding in this area.

Keywords: work-life balance; rewards; recognition; training and development; job security; job satisfaction

1. Introduction

Over the last decade, one of the most important factors in improving organizational performance has been how people are realized and advanced at work. As a result, many aspects of human resource management were thoroughly covered and discussed. Recruitment, reward and compensation, performance appraisal, training and development, career development, health and safety, and supervisor support are the most frequently mentioned HRM practices (Emeritus, 2022; Abdoulaye, 2018). Human resource management (HRM) is a practice that deals with all aspects of hiring and managing people in organizations. However, a distinct field of knowledge has already been established in which many researchers have conducted research, and the findings have contributed to the success of business establishments. Many researchers are still looking for potential unresolved issues to advance theory and skill in this field significantly. Some academics say managing people is more

difficult than managing technology or capital (Blurtit, 2023). Thus, human resource management can help businesses improve organizational behavior in areas such as employee commitment, retention, competency, and flexibility, ultimately leading to improved employee performance (Chron, 2020).

An organization's success is typically determined by its human capital and its decisions regarding its vision and mission (He et al., 2021). According to He et al. (2021), the Malaysian information technology (IT) industry requires employees who perform the tasks required for the organizational performance of the country's information technology (IT) companies.

According to Kaliprasad (2020), an organization's ability to manage its employees ultimately determines its ability to retain them. He discovered four interconnected processes that can be used to create an effective HR system. These are the motivational method, the interaction process, the visioning process, and the learning procedure. According to Okpara (2004), employee turnover is extremely detrimental to an organization in terms of monetary and customer satisfaction. According to Abbasi and Hollman (2020), the cost of replacing an employee can be enormous due to advertising and recruiting costs, lost output, and training time. This supports Baker's (2006) claim that hiring new employees is far more complicated and expensive than retaining current employees in the organization. Managing workforce retention necessitates a focus on competence and equity. As a result, management policies alone are insufficient to ensure high organizational productivity. Thus, perceived fairness and consistency in organizational promotions and replacements shape employee equity perceptions. The cost of hiring new employees varies, according to Wocke and Heymann (2022), and includes expenses such as advertisements, recruiters' salaries and reimbursements for candidates' expenses, and new employee training.

Parabakarana and Abdul Lasi (2021) claim that HRM practices like training sessions to learn about the company's motivational program are provided to new hires. Human resource management techniques improve performance and employee engagement. HRM strategies can also encourage commitment and diligence in their workers by offering them much encouragement and motivation. Organizations recognize employees in the current economic climate as an asset because they utilise their talents and knowledge (Parabakarana and Abdul Lasi, 2021) to increase organizational profit and promote their competitive advantage. There are more competitive gains in Malaysia, which impacts globalization. The impact of HRM practices, which effectively support the employee's performance, on an organization's perception of an employee's performance is considered nowadays in Malaysia (Danish and Usman Ali, 2010). Human resources management (HRM) practices are beneficial to and accountable to the organization. HRM techniques help employees by taking care of the tasks that keep them motivated at work and improve their performance to meet organizational goals. There are more competitive gains in Malaysia, which impacts globalization.

It is never good to see skilled talent in short supply. According to recruitment firm Randstad, the issue affecting Malaysia's IT sectors persisted the longest and will impede the development of the fintech and bank tech industries there (DNA, 2022). Randstad notes that despite increasing hiring intentions, skilled talent is still in short

supply in 2020. Malaysia's Information Technology (IT) industry currently faces a scarcity of proficient professionals, hindering its progress and advancement (Yee, 2020). Given the heavy reliance of these sectors on innovative technologies, the presence of skilled human resources is crucial for the successful development, implementation, and upkeep of intricate systems. The issue of skilled talent scarcity encompasses various technical and specialized positions, including software developers, data scientists, cybersecurity experts, and AI specialists. The insufficiency of human resources hinders industries' capacity to fulfill the increasing need for innovative solutions, impeding advancement and reducing their competitive advantage in the global arena. Although technology has advanced quickly over the past ten years, many workers are still catching up in learning new skills. The report on the IT industry emphasizes that everyone within the tech ecosystem should understand that upskilling is a shared responsibility and that everyone has a role to play in enhancing and developing the workforce's skills. The absence of a skilled workforce impedes growth in the fintech and bank tech industries (Yee, 2020). This is true despite Malaysia's possibility of gaining from multinational corporations' decision to offshore their shared services. Fintech and bank techs compete head-to-head to assemble tech teams and improve their labor capabilities to meet business expectations.

Voluntary turnover, or attrition, has recently become a growing issue in Malaysia. According to AON Hewitt data, the attrition rate in Malaysia increased across industries from 9.5% in 2015 to 13% in 2017 (Healthmetrics, 2021). Human resources (HR) are tasked with finding a solution because this problem has direct and indirect costs that affect revenue sustainability, organizational effectiveness, and employee morale. Qualtrics, depicts which industries face the highest attrition risk based on employee intent to stay within a year. A high turnover rate can reduce productivity and raise costs. According to the report, Malaysia will have the second-lowest employee participation rate in Southeast Asia (SEA) in 2020, down from 59% in 2016 (Healthmetrics, 2021). Employee turnover is estimated to cost 90 to 200 percent of the position's annual salary, but this does not include the costs associated with the learning curve that the new employee must overcome. In a high-turnover industry, human resources should pay special attention (Healthmetrics, 2021).

The IT sector has evolved into the development engine for all economic sectors in the era of Industry 4.0. Maintaining sufficient digital workers is crucial if we embrace the digital economy. According to the Malaysia Digital Economy Corporation's (MDEC) prediction, the IT sector will need one million digital professionals by 2025. This demonstrated that IT organizations' personnel are their greatest assets and competitive advantage. However, according to *The Sunday Daily* (2016), the National IT Association of Malaysia (PIKOM) noted that the IT industry still lacks a sufficient workforce. Schwab (2017) observed that the Malaysian IT sector now has excessive staff turnover (12.8 percent). High turnover costs money and could harm the IT industry's ability to thrive. The scarcity of IT workers has worsened due to the turnover that has occurred. This attracted the researcher's attention to conduct this study due to its relevance and value in immediately reducing the turnover rate among IT employees.

Manufacturing in Malaysia remains the most significant revenue contributor, with its contribution to total ICT spending expected to increase marginally from 18.4

percent to 18.5 percent in the period (2018–2023). Malaysia's ICT growth, particularly in the manufacturing sector, has been aided further by government-enacted policies such as 'Industry4WRD,' a national policy aimed at transforming the manufacturing sector and related services between 2018 and 2025. These policies are expected to make the Malaysian market more digitally mature (Focusonbusiness, 2020).

The exploration of Human Resource Management (HRM) practices in various industries has illuminated their impact on employee attrition, but the Information Technology (IT) sector remains less studied despite its crucial need for skilled human capital. Advances in understanding human capital behavior emphasize the complex link between HRM practices and organizational performance, showing how performance appraisal policies that reward and recognize employees can boost organizational perception and prospects. However, a significant research gap exists in the IT industry regarding HRM practices, employee attrition, and job satisfaction. In Malaysia, the Human Resource Development Fund (HRDF) initiatives aimed at enhancing employee training and workforce reintegration have not fully bridged the gap between HRDF efforts and Malaysia's competitive advantage in the global market. Despite focusing on up-skilling programs and globally accredited certification to increase organizational human capacity, particularly within SME-IT, there remains a disconnect in leveraging HRDF's potential to foster a skilled workforce. This underscores the need for a paradigm shift in HR philosophies and strategies to encourage continuous skill improvement among personnel, crucial for maintaining Malaysia's competitiveness and achieving its high-income economy goals.

2. Literature review

2.1. Strategic human resources management

Strategic Human Resource Management (SHRM) is the process of effectively managing the workforce in alignment with an organization's core strategies, objectives, and goals. It encompasses several key aspects of HR operations: i. Promoting flexible practices that give the organization a competitive edge. ii. Creating a cultural environment that aligns with the organization's values. iii. Ensuring exceptional business performance (Emeritus, 2022). Since SHRM represents a modern approach to HR management, the HR department plays a crucial role in its successful implementation. HR managers must develop a deep understanding of SHRM to contribute to the formulation and implementation of company policies actively. Strategic HR management can be integrated into various functions such as recruitment, training, and performance-based rewards. The SHRM approach enables HR personnel to contribute to the company's growth directly. Each employee's development and retention should be strategically planned to align with long-term business goals. In today's world, businesses face significant HR challenges after the pandemic. The complexities of the HR ecosystem can confuse employers and result in ineffective decision-making. Consequently, this can reduce productivity and hinder business growth (Emeritus, 2022).

Strategic human resource management entails a forward-thinking approach to developing and implementing HR programs that tackle business challenges and directly contribute to significant long-term business goals. Previously, HR

management primarily focused on administrative tasks like employee recruitment, selection, and benefits management. However, evolving labor market conditions and new business perspectives demand HR strategies encompassing effective recruitment and retention practices and ethical and cultural leadership (SHRM, 2023). Strategic planning presents both challenges and opportunities for HR professionals. Almost all HR leaders participate in strategic decision-making in large global companies and serve on the organization's strategy team. Most HR professionals also indicate that strategic planning is part of their role. Conversely, HR professionals in medium and small organizations are often not involved in organizational or functional strategic planning. Therefore, some HR departments may need to demonstrate the value and contributions HR can make to senior management to achieve long-term strategic HR objectives and actively participate in the organization's strategic planning process (SHRM, 2023).

2.2. IT industry and HR practices in Malaysia

The Information and Communications Technology (ICT) industry is crucial to Malaysia's digital economic goals, with the country positioning itself as a leader in technology adaptation and innovation. Digitalization, leveraging technologies like AI, Big Data Analytics, Robotics, and IoT, has transformed business operations. Malaysia is inviting digital stakeholders to build a sustainable ICT ecosystem and a digitally connected landscape. The nation is becoming a regional tech powerhouse, enhancing innovation and productivity for competitive advantage and wealth creation. In 2020, the ICT industry's contribution to Malaysia's GDP rose by 10.4% to RM320.0 billion, accounting for 22.6% of the GDP. This increase was primarily driven by ICT services and e-commerce from other industries (Mida, 2021). Malaysia's digital transformation continues to drive demand for American IT solutions, with IT contributing 22.6% to the country's GDP in 2020. The IT sector is projected to grow from US\$16.5 billion in 2019 to US\$25.2 billion in 2023. This growth is fueled by the digitalization of processes across major industrial sectors, offering substantial opportunities in data systems integration, cloud computing, IoT, cybersecurity, big data analytics, and emerging digital technologies for American companies (Arumugam, 2022).

The Malaysian Department of Statistics reported a 10.4% growth in the ICT industry in 2020, reaching RM320 billion. This growth is part of the government's focus on advancing the digital economy under the 12th Malaysia Plan (12MP) 2021-2025, post-Covid-19 recovery efforts. The IT sector generated 22.6% of the nation's GDP, with e-commerce in other industries contributing 8.4% of that sector's Gross Value Added (GVAICT) at 14.2% (Mida, 2021). However, the GVAICT grew by 3.3% in 2020, a decrease from the previous year's 6.6% growth rate. The IT services and manufacturing sectors contributed 5.9% and 6.7% to this growth, respectively. Manufacturing remained the largest contributor to e-commerce GVA, followed by the services sector. The growth of Malaysia's e-commerce market was further accelerated by increased online purchases due to Covid-19 movement restrictions and closure of non-essential sectors. In 2020, the IT sector employed 1.16 million people, accounting for 7.7% of total employment (Mida, 2021). The Malaysian IT industry comprises hardware, software, IT services, and telecommunication services, segmented by

enterprise size and industry verticals such as BFSI, IT and Telecom, Government, Retail and E-commerce, Manufacturing, and Energy and Utilities. Market values and forecasts for each segment are provided in USD millions (MI, 2023). Aiming to be a regional digital leader and environmentally sustainable, Malaysia has launched two Digital Catalytic Programs. The first, DE Rantau, targets digital nomads to enhance digital adoption and promote professional mobility. The second, Digital Trade, focuses on interoperability, regulatory improvements, and facilitating local and international trade (Reportlinker, 2023).

2.3. HRM challenges in talent retention

Organizations today face significant challenges in retaining talented employees. Financial dissatisfaction is a primary barrier, as employees often seek higher salaries beyond the organization's budget, leading to retention issues (Ericksen and Dyer, 2005). Additionally, mismatches between employee skills and job requirements arise from misleading information during interviews and incorrect job placements, leading to disinterest and performance issues (Palani, 2013).

The role of HR managers and supervisors is evolving in modern organizational structures. They are transitioning from traditional functions to becoming business partners, change agents, and leaders. This shift involves integrating HR into organizational business planning, adding complexity to HR service delivery (Palani, 2013). HR departments face challenges like operating with fewer, less skilled employees, increased outsourcing, downsizing, and conflicts between traditional HR functions and progressive responsibilities. A lack of business understanding among HR staff can exclude them from decision-making processes, emphasizing the need for efficiency improvement in HR services (Mahmood et al., 2021).

In the 21st century, the role of HR professionals as strategic business partners is growing. They are increasingly recognized as essential members of management teams, involved in HR planning, organizational design, and strategic change. To effectively contribute in future businesses, HR generalists must be proficient in a comprehensive set of skills (Employeeoftheyear, 2023).

2.4. Employee retention

As defined by various researchers, employee retention involves organizational initiatives to retain employees and create a positive work environment (Wickramasinghe, 2010). Sandhya and Kumar (2011) describe it as a process that encourages the use of human capital over an extended period for project completion. George (2015) links retention to the intention to stay, inversely related to the intention to leave. Lack of retention leads to higher costs in recruitment, selection, replacement, organizational disruptions, decreased productivity, and lower morale due to attrition. Training new hires further elevates costs, with significant time devoted to training programs (Dechawatanapaisal, 2018).

In the Malaysian context, the EY 2022 Work Reimagined Survey highlights that employees have more bargaining power in the job market (Fealy, 2022). The survey, including over 1500 business leaders and 17,000 employees from 22 countries, revealed that 36% of Malaysian respondents plan to leave their jobs within a year for

higher pay, better career opportunities, and flexibility. This trend is influenced by rising inflation, a shrinking labor market, and the availability of jobs with flexible work schedules. As a result, employee expectations of potential employers are changing post-Covid-19.

The survey further shows that 44% of Malaysian employees would stay with their current employer for higher pay, while 26% seek greater flexibility or remote working, and 24% aim for leadership positions. However, only 8% of Malaysian employers are considering reviewing their compensation programs to enhance competitiveness, even though 22% recognize career advancement opportunities as a key to reducing turnover. Remote work flexibility is no longer the primary cause of turnover in Malaysia, with 95% of employees desiring to work remotely at least twice a week. About 72% of Malaysian employees report their companies promoting hybrid working models to attract and retain talent, with 64% of employers implementing a hybrid plan.

Employee turnover raises business costs, particularly when losing top performers. Small businesses face more challenges than larger ones in competing for talent due to the aggressive job offers from larger companies. To attract top employees, businesses must offer competitive wages and benefits. Creating a productive and supportive workplace is crucial for retention, making it a top organizational priority to become a preferred employer (Ghosh et al., 2013).

2.5. Work-life balance

The importance of Work-Life Balance (WLB) in enhancing employee performance and achieving competitive advantages in organizations is well-recognized (Samikon and Dagogo, 2022). WLB is crucial for individuals' health and well-being, as well as for the stability and cost-effectiveness of institutions and work environments. However, in today's work culture, people are increasingly dedicating more time to work-related activities, often at the expense of personal and family time, leading to various positive and negative outcomes. Positive impacts of WLB include improved job satisfaction, organizational commitment, retention, and family functioning (Kabir et al., 2023). Conversely, a lack of WLB can lead to stress, lower commitment, job dissatisfaction, turnover, domestic issues, and reduced productivity (Hossain et al., 2018; Ollier-Malaterre, 2010; Noor and Teng, 2017).

Many managers and organizations, unfortunately, overlook the crucial link between work and personal life. This neglect is often viewed as a lack of organizational support, affecting employees' perceptions of their value within the organization (Jayasingam et al., 2021; Koon, 2020; Kurtessis et al., 2017; Mukherjee, 2019). In Malaysia, a developing country with a unique cultural identity, the concept of 'life' in WLB is often narrowly interpreted as limited to family obligations, particularly childcare. This limited understanding hinders the provision of necessary support (Jayasingam et al., 2021).

WLB policies in Malaysia tend to focus primarily on employees with family responsibilities, leading to a backlash including negative attitudes towards these policies (Perrigino et al., 2018; Noor and Mohd, 2015). Furthermore, such policies are more prevalent in the public sector, with the private sector being encouraged to prioritize economic growth. This imbalance could potentially impede Malaysia's

ambition to become a developed nation (Jayasingam et al., 2021; Noor and Mohd, 2015).

- **H1:** Work-life balance positively influences employee retention in the Malaysian information technology (IT) industry.

2.6. Job security

Job security is the assurance that an employee can maintain their job in the near future without significant interference from external factors (Yoh, 2021). It tends to be stronger during economic booms and weaker during recessions, with certain sectors like law enforcement and healthcare often offering more security than private sector jobs. Factors influencing job security include economic conditions, the company's business conditions, local laws on layoffs, employee performance, education, work location, union presence, and the employee's skills and experience relative to the company's needs.

Job security is defined as the continuity of an employee's role in a company without reduction in seniority, pay, pension rights, or other related factors (Thamotharan et al., 2021; Meltz, 1989). It is essential for employee loyalty, as a lack of job security can lead to turnover (Kaliyamoorthy et al., 2018). Lucky et al. (2013) describe job security as the ability to avoid unemployment, reducing the fear of job loss. For employers, job security is important as it aids in retaining current employees and minimizing recruitment costs (Senol, 2011; Thamotharan et al., 2021).

Job security is also linked to the economic conditions of a state (James, 2012; Thamotharan et al., 2021) and is about ensuring employees can retain their jobs (Adebayo and Lucky, 2012). Herzberg (1968) views it as the extent to which institutions provide stable positions, while Bibi et al. (2016) relate it to the employee's expectation of long-term job tenure. Job insecurity, conversely, is defined as the fundamental fear of involuntary job loss (Cheng and Chan, 2008; De Witte, 2005), suggesting that job security is a critical motivator for employee performance and organizational achievement.

- **H2:** Job security positively influences employee retention in the Malaysian information technology (IT) industry.

2.7. Rewards and recognition

Employee recognition programs are essential in appreciating and rewarding employees for their contributions that align with a business's values, significantly impacting motivation, engagement, happiness, and staff retention (Merrick, 2021). When employees feel valued for their work, they exhibit higher levels of engagement, leading to increased effort, innovation, and productivity. Recognizing employees is crucial for businesses aiming for growth, as it ensures the hiring and retention of qualified personnel.

Recognition of employee achievements is a key factor in motivation. Employees expect their accomplishments to be valued and recognized by senior management. Various organizations have developed reward and recognition systems over the years. These programs are critical tools for motivating staff to achieve organizational goals (Aktar and Pangil, 2018; Saks, 2006). Rewards and recognition allow employees to

see the value of their work, motivating them for greater performance (Umesh et al., 2013). A study on sales associates in North India found that employee engagement fully mediates the effects of rewards and recognition on performance (Alka et al., 2017).

Incentive and recognition programs have been shown to significantly improve worker performance (Armstrong, 2007; Stajkovic et al., 2018). Employee engagement is influenced by the acknowledgment of their efforts (Dharmendra and Mehta, 2013; Xanthopoulou et al., 2007). Employees who can link their success to organizational performance through rewards are more engaged and committed (Schein, 1996).

Reward and recognition serve as management's expression of appreciation for exemplary actions or specific achievements (Ndungu, 2017; Tirta and Enrika, 2020). Rewards can be explicit, like salary and incentives, or implicit, like appreciation and recognition. Fair and objective evaluations are crucial for reward distribution. Recognizing employees' efforts and achievements is a fundamental need and a common challenge in organizations (Brun and Dugas, 2008; Tirta and Enrika, 2020). Organizations can establish specific policies or initiatives to recognize and appreciate their employees' contributions, thus enhancing motivation and commitment.

Kim et al. (2022) found that organizational-level perceived support (OPS) indirectly relates to organizational profitability via voluntary workforce turnover. The bivariate correlation between OPS and the voluntary turnover rate is $r = -0.18$, $p = 0.08$. Still, the standard error of the association decreased significantly in the path analyses due to other relevant predictors (e.g., financial slack resources). The Path Analysis Results with control variables (Study 2) indicate that OPS was significantly and negatively associated with workforce voluntary and voluntary turnover rates.

- **H3:** Rewards and recognition positively influence employee retention of Malaysian information technology (IT).

2.8. Training and development

Training and development programs are crucial for organizational growth and employee skill enhancement in today's competitive world. These programs not only improve job performance and productivity but also enable organizations to adapt to changes in manufacturing processes, business environments, and technological advancements (DNA, 2022). Training results in learning, skill refinement, and acquisition of useful knowledge, preparing employees for efficient job performance and potential promotions (Employeeoftheyear, 2023). Recognizing the significance of training, many companies view it as a reflection of their commitment to their workforce and as part of a strategy that values adding over cost-cutting (Fallon-O'Leary, 2023; Handley, 2021).

Training is acknowledged as a vital tool for enhancing productivity within companies. It is seen as an investment in the most valuable asset of a firm its employees, improving their abilities, approach to work, and dedication to the business (Hamid et al., 2018; Ogbu and Idowu, 2017; Shazwani, 2012). Training effectively closes performance gaps by developing specific skills and talents necessary for organizational goals (Farooq and Aslam, 2011; Swart et al., 2005). It is also a practical approach for enhancing attitudes, knowledge, and skills, leading to satisfactory job

performance (Harrison, 2000; Obisi, 2001). Effective training and development positively impact employee attitude and retention, and is linked with the concept of job design. Job design involves creating engaging work and allowing employees flexibility in task completion, which is a significant predictor of motivation and high-quality service (Ho and Wo, 2019; Oldham and Fried, 2016).

The changing job market in Malaysia has heightened the need for training and development. A significant proportion of respondents (89%) feel the need for more training to stay relevant, and many seek skills assessment tests from employers or the government (HumanResources, 2022). An executable long-term workforce upskilling strategy is crucial for career advancement and to prevent employee turnover, as seen in trends like The Great Resignation. Factors influencing workforce re-entry include better working conditions, personal ambition, and a desire for change (HumanResources, 2022).

The COVID-19 pandemic has accelerated the shift towards a digital economy, necessitating upskilling and reskilling. In Malaysia, the pandemic led to significant job losses, particularly in the manufacturing, accommodation, food and beverage, and retail sectors (Kam, 2020). The Malaysian government's Movement Control Order resulted in an average monthly job loss of 10,000 Malaysians in 2020, a 278% increase compared to 2019 (Kam, 2020). As industries evolve, continuous training and development are essential for employees to adapt and maintain relevance in the evolving job market. One of the most pressing issues during COVID-19 was ensuring that employees received the necessary training. Training and development have become increasingly important in improving organizational performance because they help employees polish new skills, advance their knowledge, and meet technological challenges such as COVID-19. Kim, Messersmith, and Eisenberger (2022) discovered that employees respond differently to the same organizational initiatives during COVID-19, resulting in varying work attitudes such as job satisfaction and organizational commitment. According to the authors, such training and development significantly improves employee job performance in the long term.

- **H4:** Training and development positively influence employee retention of Malaysian information technology (IT).

2.9. Job satisfaction as a mediator

Researchers discovered that job satisfaction acts as a buffer between organizational performance and internal service quality and between time stress and health outcomes, core self-evaluation, and burnout (Sousa-Poza and Henneberger, 2004). The impact of pay and promotions on intention to leave the company is moderated by job satisfaction (Choudhury and Bhaskary, 2016). According to Danneels and Kleinschmidt (2001), job satisfaction somewhat mediates the effect of competitive pay, career advancement prospects, a demanding work environment, and a learning culture on the desire of Indian business process outsourcing businesses to attract talent. A study by Sousa-Poza and Henneberger (2004) discovered that job satisfaction acts as a mediator between internal service quality and organizational performance, time stress and health outcomes, and core self-evaluation and burnout. Other researchers, such as Kampkotter (2016) and Joseph et al. (2007), also found that

job satisfaction serves as an intermediary in analyzing turnover intention. Choudhury and Mishra (2011) found that job satisfaction mediates the influence of salary and promotion on turnover intention. Furthermore, Danneels and Kleinschmidt (2001) found that job satisfaction plays a partial intermediary role in the influence of competitive salary, career promotion opportunities, challenging working environment, and learning culture on the talent flow intention of Indian business process outsourcing organizations.

- **H5:** Job satisfaction mediates between HRM practices (work-life balance, job security, rewards and recognition and training and development) and employee retention in the Malaysian information technology (IT) industries.

2.10. Theoretical justification

The resource-based view (RBV) theory, pivotal in strategic management, focuses on how companies can gain a sustainable competitive advantage through effective management of their resources and capabilities. This theory has been instrumental in human resource management (HRM), aiding managers in employee selection, training, and retention. RBV posits that resources, especially those with VRIO (valuable, rare, inimitable, and organized) characteristics, are critical for improving company performance and maintaining a competitive edge (Rothaermel, 2012).

The RBV approach, based on the idea that firm resources are unevenly distributed and stable over time, has evolved to understand how strategic resources and competencies lead to exceptional performance. It views resources as various tangible and intangible assets, including materials, skills, organizational structures, and knowledge about the organization (Taha, 2020). This theory emphasizes the significance of a company's unique internal resources in creating competitive advantage, arguing that no two companies possess the same set of resources.

Effectively combining and utilizing a company's resources and competencies can lead to a competitive advantage. Innovation and market positioning are crucial for sustaining this advantage (Mweru and Muya, 2015). However, while an organization's specific human capital can provide a competitive advantage, effective HR practices can be easily replicated by competitors.

The distinction between resources and capabilities is also highlighted in the RBV theory. Resources are inputs to the production process and form the basis for analysis. Grant (1999) notes the challenges in determining specific organizations' resource bases, as information technology and financial statements provide only a fragmented view of these resources and fail to adequately describe intangible resources and people-based skills. A classification strategy is suggested to include various resource types like financial, physical, human, technological, reputational, and organizational resources, aiding in resource identification (Taha, 2020).

When exploring the realm of Human Resource Management (HRM) through the Resource-Based View (RBV) lens, attention is directed toward both the human element—the workforce—and the organizational mechanisms that support HR, including its structures, policies, and practices (Evans et al., 2002; Fey and Bjorkman, 2001; MacDuffie, 1995; Schuler et al., 1993). For a company to secure a lasting competitive edge, it must either have a team with skills and knowledge superior to

those of its rivals or implement HR strategies that distinctly set it apart from the competition. Furthermore, these distinguishing factors—whether they be the competencies of the workforce or the HR methodologies—should be challenging for competitors to replicate or imitate, as argued by Wright et al. (2001).

3. Method

This study employs quantitative research to explore the relationship between Human Resource Management (HRM) practices and employee retention in the Information Technology (IT) sector. Quantitative research is a method used by social scientists, including communication researchers, to understand social phenomena and generate knowledge. This particular study focuses on a sample population of middle management in the IT industry, chosen for their experience and knowledge. The research methodology involves hypothesis testing based on a literature review and data collection through an online questionnaire, designed to minimize disruption to regular workflows (Allen, 2017). The study, targeting the top ten IT companies in Malaysia, disseminated the survey via Facebook and email to maximize response rates. Malaysia's IT industry, with 772 companies, employs around 1.16 million people, accounting for 7.7% of total employment (Crunchbase, 2022). The ten IT companies were selected based on vacancy openings of IT/SAP (in Malaysia). A questionnaire was created to obtain responses on a particular data set pertinent to this inquiry using a five-point Likert scale. The survey aims to determine how strongly respondents disagree, strongly agree, or are unsure regarding HRM procedures, job satisfaction, and staff retention. The data analysis was conducted using PLS-3 (PLS-SEM) software. Cohen's (1998, 2017) statistical power analysis table was used to calculate an appropriate sample size, considering factors like significance level, estimated variance, effect size, desired power, and sample size, to avoid erroneous conclusions. Convenience sampling was employed for this study. This method involves collecting data from respondents who are readily available. The questionnaire aims to gauge the respondents' agreement, disagreement, or uncertainty regarding HRM practices and employee retention. This approach ensures that the survey captures relevant data specifically tailored to this research inquiry.

4. Findings

According to Nunnally and Bernstein (1994), composite reliability (CR) values are regarded as excellent, between 0.7 and 0.9, while numbers below 0.6 signify a lack of internal consistency. All of the constructs' composite reliabilities are satisfactory because they are more than 0.9, which is above the level that is considered acceptable. As a result, they satisfy the requirement for construct reliability. Work-life balance has a composite reliability score of 0.903, followed by job security (0.955), rewards and recognition (0.936), training and development (0.956), and employee retention (0.925) (Refer to **Table 1**).

Table 1. Measurement models for all constructs.

Construct	Cronbach's alpha	Composite reliability (CR)	Average variance extracted (AVE)
Work-life balance (WLB)	0.871	0.903	0.609
Job security (JS)	0.947	0.955	0.680
Rewards and recognition (RR)	0.920	0.936	0.676
Training and development (TD)	0.948	0.956	0.708
Employee retention (ER)	0.909	0.925	0.578

Construct reliability and validity analysis: Because they fall between 0.578 and 0.708, the AVE for reflective constructs and attributes demonstrated convergent validity (refer to **Table 1**). All reflecting constructs and attributes are credible for this research because the AVE values for the six variables are all above the 0.5 threshold. Hair et al. (2016) suggesting that more than half of the variance of the individual indicators were explained by its latent variable. Work-life balance ranks third on the AVE scale with a score of 0.609, followed by staff retention (0.578), job security (0.680), rewards and recognition (0.676), and training and development (0.708). (Refer to **Table 1**).

Discriminant validity: According to the Fornell and Larcker (1981) discriminant validity threshold, a concept's AVE must be greater than the square of its highest correlation with any other construct. This strategy is justified because each construct differs from the others in terms of the amount of variance it shares with its associated indicators (Henseler et al., 2012). Testing was necessary to determine whether the creations differed sufficiently from one another (Hair et al., 2012). As shown in **Table 2**, the AVE values of each latent variable are greater than the latent variable's highest squared correlation over the other latent variable. These findings demonstrate discriminant validity at the construct level by demonstrating that each latent variable above has a higher construct variance with its assigned indicators than another latent variable. Values less than 0.85 indicate that discriminant validity exists.

Table 2. Discriminant validity—Fornell-Larcker criterion.

	WLB	ER	JS	RR	TD
WLB	0.780	-	-	-	-
ER	0.490	0.760	-	-	-
JS	0.581	0.642	0.825	-	-
RR	0.647	0.627	0.817	0.822	-
TD	0.596	0.581	0.857	0.784	0.841

Assess the level of R^2 : Calculating the coefficient of determination (R^2) values, which focus on the squared correlation between an endogenous construct's actual and anticipated values, is a way to gauge how well models can predict future outcomes (Rezaei, 2015).

Table 3 shows the R^2 value of employee retention is 0.453. Therefore, the model moderately explained the endogenous latent variables (Rezaei, 2015). Employee retention (ER) influenced by work-life balance, job security, rewards and recognition, and training and development has an R-Square value of 0.453. This would mean that

work-life balance, job security, rewards and recognition, and training and development can explain a 45.3% change in employee retention. Hair et al. (2012) suggested in scholarly research that R^2 values of 0.75, 0.50, or 0.25 for endogenous latent variables can, as a rough rule of thumb, be respectively described as substantial, moderate or weak. In this case, 0.453 moderately explained the dependent variables.

Table 3. The level of R^2 .

	R-square	R-square adjusted
ER	0.453	0.441

Bootstrapping analysis-path coefficients result: The structural model’s path coefficients describe the constructs’ hypothesized connections. The interpretation of the structural model path coefficients is related to one another (Henseler et al., 2012). A path’s impact on the endogenous latent variable is greater if its path coefficient is larger than that of the other path. In reflective structural modelling, the individual path coefficients of the path model can be understood similarly to the standardized beta coefficients in regression (Hair et al., 2012a).

Table 4. Path coefficients.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
WLB → ER	0.105	0.110	0.096	1.088	0.277
JS → ER	0.335	0.335	0.170	1.973	0.049
RR → ER	0.244	0.249	0.135	1.803	0.071
TD → ER	-0.021	-0.031	0.172	0.120	0.905

When we examine the relationships between various factors and Employee Retention (ER) as indicated by path coefficients (See **Table 4**), we gain valuable insights into what drives retention. The analysis reveals a positive but not statistically significant relationship between Work-Life Balance (WLB) and ER, with a path coefficient of 0.105 and a p -value of 0.277, indicating that the effect may not be robust at conventional significance levels. Job Satisfaction (JS) has a stronger positive influence on ER, as evidenced by a coefficient of 0.335 and a p -value just below the significance threshold of 0.049, emphasizing its importance in employee retention strategies. The relationship between Role Requirements (RR) and ER is also positive, with a coefficient of 0.244 and a p -value of 0.071, indicating a potentially significant but not conclusively significant impact and suggesting an area for further investigation. Finally, the analysis reveals a negligible and statistically insignificant negative relationship between Training and Development (TD) and ER, as indicated by a coefficient of -0.021 and a p -value of 0.905, implying that TD has no significant influence on ER based on the available data. This comprehensive analysis emphasizes the importance of job satisfaction in retention, encouraging further investigation into the roles of work-life balance and role requirements, and questioning the effectiveness of training and development initiatives in employee retention.

- **H1:** Work-life balance positively influences employee retention in the Malaysian technology industry.

It indicates that for employees in the IT industry, work-life balance (WLB) = employee retention (ER), where ($\beta = 0.105$, $t = 1.088 < 1.96$, $p = 0.277 > 0.05$) means that work-life balance negatively influences employee retention.

Numerous studies have been conducted to investigate the relationship between work-life balance and psychological outcomes such as job satisfaction and organizational commitment (Doherty and Manfredi, 2006). Virick et al. (2007) discovered a positive relationship between work-life balance and job satisfaction in their study of layoff survivors in a high-tech company. Work-life balance is linked to organizational commitment of all employee categories, according to a study by Kinnie et al. (2005) that examined the relationships between employees' satisfaction with HR policies and their affective commitment to the organization. The authors also discovered evidence linking organizational initiatives to help employees balance work and personal obligations and the dedication of all employee groups. As a result, this study does not support the existence of positive relationships between work-life balance and employee retention. As a result, H1 is not supported.

- **H2:** Job security positively influences employee retention in the Malaysian technology industry.

It indicates that for employees in the IT industry, job security (JS) = employee retention (ER), where ($\beta = 0.335$, $t = 1.973 > 1.96$, $p = 0.049 < 0.05$) means that job security positively influences employee retention.

Researchers have demonstrated that job stability encourages employees to stay with a company. Davy et al. (2015) found a strong correlation between job security and employee retention. The effects of job insecurity on organizational commitment, job satisfaction, and job performance were explored by Ashford, Lee, and Bobko in 2015. Although it is debatable if work instability impacts job performance, it has undoubtedly resulted in decreased dedication and happiness. According to Abbeglen (2016), the high level of commitment among Japanese employees stems from a strong sense of job security brought about by the country's distinctive employment system, which includes lifelong employment and the seniority system. Mosaybian and Jafari (2017) compared job security and organisational commitment. They used a correlation technique, and it and at there is a strong association between organisational dedication and job security. Thus, positive relationships between job security and employee retention in this study are supported. Hence, H2 is supported.

- **H3:** Rewards and recognition positively influence employee retention in the Malaysian technology industry.

It indicates that for employees in the IT industry, rewards and recognition (RR) = employee retention (ER), where ($\beta = 0.244$, $t = 1.803 < 1.96$, $p = 0.071 > 0.05$) means that rewards and recognition negatively influence employee retention.

According to Ndungu (2017), reward and recognition are attempts by an organization's or company's management to express gratitude to its members or employees for serving as role models or for specific actions. The award is also expected to increase employee motivation because they will receive something in appreciation for their accomplishments or services to the organization or company. Some argue that incentives can be either implicit or explicit. Complements, recognition (such as best employee), and expressions of appreciation are examples of implicit rewards, whereas salary and incentives are examples of explicit rewards.

Rewards should be given based on a fair and impartial assessment. Given that recognition is one of a person’s basic needs, Brun and Dugas (2008) observed that most organizations address employee recognition. An organization could elaborate on acknowledgment through specific policies or initiatives, indicating that it wishes to honor its employees’ efforts. As a result, this study does not support positive relationships between job security and employee retention. Hence, H3 is not supported.

- **H4:** Training and development positively influence employee retention in the Malaysian technology industry.

It indicates that for employees in the IT industry, training and development (TD) = employee retention (ER), where ($\beta = -0.021, t = 0.120 < 1.96, p = 0.905 > 0.05$) means that training and development negatively influence employee retention.

Lusewa (2015) demonstrated that training programs are a determinant factor of employee retention; however, training alone is insufficient to maintain employee retention because other factors, such as good relationships, performance management, leadership style, and career development, enhance employee retention that can be conducted with training programs, and advised managers to recognize these factors, in addition to training programs, as the best. Lusewa (2015) used 105 employees as a sample for qualitative and quantitative analysis. Interviews, focus groups, and structured questionnaires were used to collect data. It enabled the researcher to comprehend the beneficial impact of training and other factors on employee retention. Thus, this study does not support positive relationships between training and development and employee retention. Hence, H4 is not supported.

Table 5. Indirect effect tests.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
JS → JSF → ER	0.040	0.038	0.077	0.519	0.604
WLB → JSF → ER	0.007	0.008	0.016	0.442	0.659
RR → JSF → ER	0.008	0.009	0.021	0.401	0.689
TD → JSF → ER	0.016	0.018	0.035	0.469	0.639

- **H5:** Job satisfaction mediates between HRM practices (work-life balance, job security, rewards and recognition and training and development) and employee retention in the Malaysian information technology (IT) industries.

The investigation into the dynamics of job satisfaction within the IT industry provides a comprehensive analysis of its mediating role between critical organizational factors—work-life balance, job security, rewards and recognition, and training and development—and employee retention. This exploration uncovers the multifaceted influence job satisfaction exerts on the nexus between these variables and employee retention, offering a nuanced understanding of its impacts across different contexts.

Starting with the mediating role of job satisfaction between work-life balance (WLB) and employee retention (ER), the findings indicate a negative mediation, highlighted by a beta coefficient of 0.007, a *t*-value of 0.442, and a *p*-value of 0.659 (see **Table 5**). This suggests that job satisfaction may not always enhance the positive impact of work-life balance on employee retention, challenging existing assumptions

about its universally beneficial role (Fayyazi and Aslani, 2015; Noor, 2011; Ozbag and Ceyhun, 2014; Riley, 2006). The literature indicates that the impact of job satisfaction can vary, with studies showing both partial and total mediation effects between work-life balance conflicts and turnover intentions, as well as cases where job satisfaction does not mediate the relationship between work-family conflict and turnover intentions.

In the realm of job security, the research similarly identifies a negative mediation by job satisfaction on the relationship between job security (JS) and employee retention (ER), as evidenced by a beta of 0.040, a t -value of 4.988, and a p -value of 0.604. This finding is in line with the mixed results from previous studies on the connection between job security and performance, which have shown both positive and negative correlations (Cheng and Chan, 2008; Glambek et al., 2018; Khan et al., 2015).

Furthermore, job satisfaction's mediating effect between rewards and recognition (RR) and employee retention (ER) is also found to be negative, with a beta of 0.008, a t -value of 0.401, and a p -value of 0.689. This aspect of the study underscores the complexities surrounding the impact of rewards and recognition on retention when mediated by job satisfaction, reflecting broader challenges in ensuring effective employee retention strategies in sectors such as academia in Malaysia, where issues like underpayment and role conflicts are prevalent (Hidayat et al., 2021; Manogharan et al., 2018).

Lastly, the analysis extends to the influence of training and development (TD) on employee retention, mediated by job satisfaction, revealing a beta of 0.016, a t -value of 0.469, and a p -value of 0.639, indicating a negative mediation. This part of the study echoes the importance of training and development in enhancing employee performance and satisfaction but challenges the assumption of its direct mediation role in improving retention (Barzegar and Farjad, 2011; Dermol et al., 2013; Okechukwu, 2017; Tahir et al., 2014).

These findings enrich the discourse on the role of job satisfaction within organizational settings, particularly in the IT industry. The research underscores the complexity of designing effective employee retention strategies by highlighting the conditional and sometimes counterintuitive effects of job satisfaction as a mediator between various factors and employee retention factors. It calls for a more nuanced consideration of job satisfaction's role, advocating for empirical studies to further unravel under what circumstances job satisfaction can serve as a beneficial mediator in the relationship between organizational factors and employee retention. Hence, H5 is not supported.

5. Discussion

Research by Panda and Sahoo (2020) and Kanwar et al. (2009) indicates that employees participating in WLB programs are likelier to remain with their employer. These programs significantly boost morale, reduce absenteeism, and enhance retention. A balance between professional and personal responsibilities leads to higher motivation, satisfaction, and retention. However, the decisions about WLB programs are sometimes based on unreliable evidence. WLB and managerial support influence

employees' intentions to stay or leave an organization. A lack of managerial support combined with a high level of WLB may negatively impact the intention to leave. Employee job satisfaction is a significant driver of WLB and employee retention.

Job security is crucial for employees and employers alike. Employees with job security experience less stress, leading to higher productivity and potentially avoiding long-term issues like depression. Adesubomi (2018) emphasizes that job security provides peace of mind and a sense of fulfillment, enabling employees to focus on other goals without the threat of job loss. The workplace should be a safe haven, offering security against economic and social challenges. Job security is key to an employee's relationship with their employer.

Organizations often struggle with employee retention, and HiFives (2019) suggests that evaluating the impact of rewards and recognition on retention is vital. Financial incentives alone are insufficient; high-performing employees also value recognition and respect. Proper reward and recognition programs are essential to retain top talent. These programs motivate employees to perform at their best and appreciate their contributions, leading to enhanced employee engagement and organizational growth.

Koteswari et al. (2020) highlight the importance of training in HRM, as it enhances employees' skills and knowledge, leading to job relevance and organizational cost savings. However, Elsafty and Oraby (2022) argue for the termination of low-performing employees despite the potential costs. Training is an effective way to retain employees longer, and lack of training may push employees to seek opportunities elsewhere. Chen (2014) identifies training as a key factor influencing employee retention. Beynon et al. (2015) and Elsafty and Oraby (2022) found that training methods significantly affect employee commitment, loyalty, and the likelihood of leaving for a competitor. Off-the-job training has minimal impact, suggesting the need for specific and effective training methods to yield better retention results. Employees receiving independent training outside the organization are less committed and more likely to leave for better opportunities.

WLB programs, job security, rewards and recognition, and training are pivotal in influencing employee retention. These factors contribute to employee satisfaction, motivation, and commitment, ultimately affecting an organization's ability to retain skilled and talented professionals. Employers must consider these aspects to ensure a stable and productive workforce, thus fostering organizational growth and success.

6. Conclusion

The study titled "The Impact of Human Resource Management (HRM) Practices on Employee Retention in Malaysia's Information Technology (IT) Industry" focused on exploring how HRM practices affect employee retention in the Malaysian IT sector, using job satisfaction as a mediator. Only one was supported among the five hypotheses proposed based on the literature review and research objectives. This was Hypothesis 2, which posited that job security has a positive impact on employee retention in the Malaysian IT industry. The other hypotheses, related to work-life balance, rewards and recognition, and training and development, did not find support. This suggests that these HRM practices might not significantly predict employee

retention in this industry. Additionally, the study did not confirm the role of job satisfaction as a mediator in the relationship between HRM practices and employee retention.

The findings of this study have practical implications for organizations and policymakers within the Malaysian IT industry. The key takeaway is the crucial role of job security in retaining employees. Companies are advised to focus on effective job security practices. However, the impacts of other HRM practices like work-life balance, rewards and recognition, and training and development still provide valuable insights for organizational improvement in enhancing employee retention.

Nevertheless, the study has several limitations that warrant caution in interpreting its results. These include small sample size, reliance on a single-item measure for job satisfaction, and its cross-sectional nature. These limitations highlight the need for further research to gain a more comprehensive understanding of how HRM practices influence employee retention in the Malaysian IT industry and to explore the mechanisms behind these influences.

In conclusion, the study underscores the importance of job security in employee retention in the Malaysian IT industry, offering vital insights for organizational strategies in this sector. However, its limitations suggest a need for ongoing research to fully grasp the impact of various HRM practices on employee retention.

Author contributions: Conceptualization, AV and ESY; methodology, AV and AK; software, AV and NK; validation, RB, SN and AW; formal analysis, AV; investigation, AV; resources, ESY; data curation, AV; writing—original draft preparation, AV and ESY; writing—review and editing, AV; visualization, AK; supervision, AV; project administration, NK; funding acquisition, AV. All authors have read and agreed to the published version of the manuscript.

Acknowledgments: The authors offer special gratitude to INTI International University for the opportunity to conduct research and publish the research work. In particular, the authors would like to thank INTI International University for funding the publication of this research work.

Conflict of interest: The authors declare no conflict of interest.

References

- Abbasi, S. M., & Hollman, K. W. (2000). Turnover: The Real Bottom Line. *Public Personnel Management*, 29(3), 333–342. <https://doi.org/10.1177/009102600002900303>
- Abbeglen, J. (2016). 21st Century Japanese management: New systems, lasting values. *Nihon KeizaiShimbun*.
- Abdoulaye, B. A. (2018). Research on the Relationship between Human Resource Management Practices and Employee Retention in Chinese Overseas Enterprise Evidence from Huawei in Senegal. *Journal of International Business Research and Marketing*, 3(3), 7–22. <https://doi.org/10.18775/jibrm.1849-8558.2015.33.3001>
- Adebayo, O. I., & Lucky, O. I. E. (2012). Entrepreneurship development and national job security. In: *Proceedings of the LASPOTTECH SM National Conference on National Job Security Main Auditorium*, 25–26.
- Abolade, D. A. (2018). Impact of Employees' Job Insecurity and Employee Turnover on Organisational Performance in Private and Public Sector Organisations. *Studies in Business and Economics*, 13(2), 5–19. <https://doi.org/10.2478/sbe-2018-0016>
- Aktar, A., & Pangil, F. (2018). Mediating role of organizational commitment in the relationship between human resource management practices and employee engagement. *International Journal of Sociology and Social Policy*, 38(7–8), 606–636. <https://doi.org/10.1108/ijssp-08-2017-0097>

- Alka, R., Piyali, G., Ragini, C., & Richa, S. (2017). Improving in-role and extra-role performances with rewards and recognition. *Management Research Review*, 41(8), 902–919. <https://doi.org/10.1108/mrr-12-2016-0280>
- Allen, M. (2017). *The SAGE Encyclopedia of Communication Research Methods*. <https://doi.org/10.4135/9781483381411>
- Armstrong, M. (2007). *Employee Reward Management and Practice*, 2nd ed. Kogan Page.
- Appiah, B. (2010). *The impact of training on employee performance: A case study of HFC Bank (Ghana) Limited [PhD thesis]*.
- Arumugam, K. (2022). Available online: <https://www.trade.gov/market-intelligence/malaysia-information-and-communication-technology-ict-growt> (accessed on 2 December 2023).
- Ashford, S. J., Lee, C., & Bobko, P. (2015). Content, causes, and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32(4), 803–829. <https://doi.org/10.2307/256569>
- Baker, E. (2006). *The human factor*. CIO Insingt.
- Barzegar, N., & Farjad, S. (2011). A Study on the Impact of on the Job Training Courses on the Staff Performance (a Case Study). *Procedia-Social and Behavioral Sciences*, 29, 1942–1949. <https://doi.org/10.1016/j.sbspro.2011.11.444>
- Beynon, M. J., Jones, P., Pickernell, D., et al. (2015). Investigating the impact of training influence on employee retention in small and medium enterprises: a regression-type classification and ranking believe simplex analysis on sparse data. *Expert Systems*, 32(1), 141–154. Portico. <https://doi.org/10.1111/exsy.12067>
- Bibi, P., Ahmad, A., & Majid, A. H. A. (2018). The Impact of Training and Development and Supervisor Support on Employees Retention in Academic Institutions: The Moderating Role of Work Environment. *Gadjah Mada International Journal of Business*, 20(1), 113. <https://doi.org/10.22146/gamaijb.24020>
- Blurtit. (2023). Available online: <https://education.blurtit.com/107452/what-is-manipulation-or-researcher-interference-in-the-research-study> (accessed on 2 December 2023).
- Brockner, J., Grover, S., Reed, T. F., & Dewitt, R. L. (1992). Layoffs, job insecurity, and survivors' work effort: Evidence of an inverted-U relationship. *Academy of Management Journal*, 35(2), 413–425. <https://doi.org/10.2307/256380>
- Brun, J.-P., & Dugas, N. (2008). An analysis of employee recognition: Perspectives on human resources practices. *The International Journal of Human Resource Management*, 19(4), 716–730. <https://doi.org/10.1080/09585190801953723>
- Cegarra-Leiva, D., Sánchez-Vidal, M. E., & Gabriel Cegarra-Navarro, J. (2012). Understanding the link between work life balance practices and organisational outcomes in SMEs. *Personnel Review*, 41(3), 359–379. <https://doi.org/10.1108/00483481211212986>
- Cheng, G. H. -L., & Chan, D. K. -S. (2007). Who Suffers More from Job Insecurity? A Meta-Analytic Review. *Applied Psychology*, 57(2), 272–303. Portico. <https://doi.org/10.1111/j.1464-0597.2007.00312.x>
- Chen, M. (2014). *The Effect of Training on Employee Retention*. *Advances in Intelligent Systems Research*. <https://doi.org/10.2991/gecss-14.2014.90>
- Chaudhry, N.S. and Bhaskary, P. (2016). Training and Development and Job Satisfaction in Education Sector. *Journal of Resource Development and Management*, 16, 42–45.
- Chron. (2020). *CHRON*. Available online: <https://smallbusiness.chron.com/role-human-resource-managers-internationalization-business-11567.html> (accessed on 2 December 2023).
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Lawrence Erlbaum Associates, Publishers.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education*, 5th ed. Routledge Falmer.
- Cohen, L. M. (2017). *Research Methods in Education*, 8th ed. Routledge.
- Crunchbase. (2022). *crunchbase.com*. Available online: <https://www.crunchbase.com/hub/malaysia-information-technology-companies> (accessed on 2 December 2023).
- Danish, R. Q., & Usman, A. (2010). Impact of Reward and Recognition on Job Satisfaction and Motivation: An Empirical study from Pakistan. *International Journal of Business and Management*, 5(2). <https://doi.org/10.5539/ijbm.v5n2p159>
- Danneels, E., Kleinschmidt, E.J. (2001). Product Innovativeness from the Firm's Perspective: Its Dimensions and Their Relation with Project Selection and Performance. *Journal of Product Innovation Management: An International Publication of the Product Development and Management Association*, 18, 357–373.
- Davy, J. A., Kinicki, A. J., & Scheck, C. L. (1997). A test of job security direct and mediated effects on withdrawal cognition. *Journal of organization Behaviour*, 18(4), 224–249.
- Dharmendra, M., & Mehta, N. K. (2013). Employee engagement: A literature review. *Economia. Seria Management*, 16(2), 208–215.

- Dechawatanapaisal, D. (2018). Employee retention: the effects of internal branding and brand attitudes in sales organizations. *Personnel Review*, 47(3), 675–693. <https://doi.org/10.1108/pr-06-2017-0193>
- Dermol, V., & Čater, T. (2013). The influence of training and training transfer factors on organisational learning and performance. *Personnel Review*, 42(3), 324–348. <https://doi.org/10.1108/00483481311320435>
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31(4). <https://doi.org/10.4102/sajip.v31i4.200>
- DNA. (2022). Available online: <https://www.digitalnewsasia.com/business/majority-malaysians-want-improve-work-life-balance> (accessed on 2 December 2023).
- Doherty, L., & Manfredi, S. (2006). Action research to develop work-life balance in a UK university. *Women in Management Review*, 21(3), 241–259. <https://doi.org/10.1108/09649420610657416>
- Elsafty, A., & Oraby, M. (2022). The Impact of Training on Employee Retention. *International Journal of Business and Management*, 17(5), 58. <https://doi.org/10.5539/ijbm.v17n5p58>
- Emeritus. (2022). Available online: https://emeritus.org/blog/how-to-close-the-skills-gap/?utm_source=organic&utm_campaign=organic_tw_skillsgap (accessed on 2 December 2023).
- Employeeoftheyear. (2023). Available online: <https://employeeoftheyear.africa/challenges-facing-human-resources-management-in-21st-century/> (accessed on 2 December 2023).
- Ericksen, J., & Dyer, L. (2005). Toward a strategic human resource management model of high reliability organization performance. *The International Journal of Human Resource Management*, 16(6), 907–928. <https://doi.org/10.1080/09585190500120731>
- Evan, P., Pucik, V. & Barsoux, J-L. (2002). *The global challenge: Frameworks for international human resource management*. McGraw-Hill Irwin.
- Fallon-O’Leary, D. (2023). Available online: <https://www.uschamber.com/co/grow/thrive/work-life-integration-vs-work-life-balance> (accessed on 2 December 2023).
- Farooq, M., & Khan, M. A. (2011). Impact of training and feedback on employee performance. *Far East Journal of Psychology and Business*, 5(1), 23–33.
- Fayyazi, M., & Aslani, F. (2015). The Impact of Work-Life Balance on Employees’ Job Satisfaction and Turnover Intention; the Moderating Role of Continuance Commitment. *International Letters of Social and Humanistic Sciences*, 51, 33–41. <https://doi.org/10.18052/www.scipress.com/ilshs.51.33>
- Fealy, L. (2022). Available online: https://www.ey.com/en_my/workforce/work-reimagined-survey (accessed on 2 December 2023).
- Fey, C. F., & Bjorkman, I. (2001). The effect of human resource management practices on MNC subsidiary performance in Russia. *Journal of International Business Studies*, 32, 59–75.
- Fletcher, L., Alfes, K., & Robinson, D. (2018). The relationship between perceived training and development and employee retention: the mediating role of work attitudes. *The International Journal of Human Resource Management*, 29(18), 2701–2728. <https://doi.org/10.1080/09585192.2016.1262888>
- Focusonbusiness. (2020). Available online: <https://focusonbusiness.eu/en/education/information-and-communication-technology-ict-market-in-malaysia-is-set-to-grow/3430> (accessed on 2 December 2023).
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- George, C. (2015). Retaining professional workers: what makes them stay? *Employee Relations*, 37(1), 102–121. <https://doi.org/10.1108/er-10-2013-0151>
- Ghosh, P., Satyawadi, R., Prasad Joshi, J., et al. (2013). Who stays with you? Factors predicting employees’ intention to stay. *International Journal of Organizational Analysis*, 21(3), 288–312. <https://doi.org/10.1108/ijoa-sep-2011-0511>
- Glabek, M., Skogstad, A., & Einarsen, S. (2018). Workplace bullying, the development of job insecurity and the role of laissez-faire leadership: A two-wave moderated mediation study. *Work & Stress*, 32(3), 297–312. <https://doi.org/10.1080/02678373.2018.1427815>
- Grant, R. M. (1999). The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *California Management Review*, 33(3), 114–135. <https://doi.org/10.2307/41166664>

- Hair, J. F., Sarstedt, M., Ringle, C. M., et al. (2012a). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–433. <https://doi.org/10.1007/s11747-011-0261-6>
- Hair, J. F., Sarstedt, M., Pieper, T. M., et al. (2012b). The Use of Partial Least Squares Structural Equation Modeling in Strategic Management Research: A Review of Past Practices and Recommendations for Future Applications. *Long Range Planning*, 45(5–6), 320–340. <https://doi.org/10.1016/j.lrp.2012.09.008>
- Hamid, A. A., Surbaini, K. N., Hadi, N., & Fatihah, S. N. (2018). Training Effectiveness and Employee performance in a Malaysian Government-Linked Company. 8th International Economics and Business Management Conference. *Future Academy*. pp. 282-288.
- Handley, L. (2021). www.cnn.com. Retrieved from www.cnn.com: <https://www.cnn.com/2021/11/29/how-work-best-friends-could-help-put-an-end-to-the-great-resignation.html> (accessed on 2 December 2023).
- Harrison, R. (2000). *Employee Development*. Silver Lakes, Pretoria. Beekman Publishing.
- Healthmetrics. (2021). Available online: <https://healthmetrics.com/m/how-to-improve-employee-retention-with-employee-benefits-in-malaysia/> (accessed on 2 December 2023).
- He, W., Zhang, Z., & Li, W. (2021). Information technology solutions, challenges, and suggestions for tackling the COVID-19 pandemic. *International Journal of Information Management*, 57, 102287. <https://doi.org/10.1016/j.ijinfomgt.2020.102287>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2012). Using Partial Least Squares Path Modeling in Advertising Research: Basic Concepts and Recent Issues. *Handbook of Research on International Advertising*. <https://doi.org/10.4337/9781781001042.00023>
- Herzberg, F. (1968). One More Time: How Do You Motivate Employees? *Harvard Business Review*, 46, 53–62.
- Hidayat, T., Fahmy, R., Sari, D. K., et al. (2021). COVID-19 Outbreak Effects on Leadership, Job Satisfaction and Turnover Intention: A Mediating Model of Indonesian Banking Sector. *International Journal of Industrial Management*, 10, 113–128. <https://doi.org/10.15282/ijim.10.1.2021.6011>
- HiFives. (2019). Available online: <https://understanding-the-impact-of-employee-rewards-and-recognition-on-employee-turnover/> (accessed on 2 December 2023).
- Ho, C.-W., & Wu, C.-C. (2019). Using job design to motivate employees to improve high-quality service in the airline industry. *Journal of Air Transport Management*, 77, 17–23. <https://doi.org/10.1016/j.jairtraman.2019.02.008>
- Hossain, M. I., Limon, L., Amin, M. T., & Asheq, A. S. (2018). Work Life Balance Trends: A Study on Malaysian Generation Y Bankers. *Journal of Business and Management*, 20(9), 01–09. *Journal of Science & Technology*, 4(12), 1778–1782.
- HumanResources. (2022). Human Resources. Available online: <https://www.humanresourcesonline.net/nine-in-10-malaysian-employees-surveyed-want-upskilling-opportunities-from-their-employers> (accessed on 2 December 2023).
- Islam, R., & Ismail, A. Z. Hj. (2004). Ranking of employees' reward and recognition approaches: a Malaysian perspective. *J. for International Business and Entrepreneurship Development*, 2(2), 113. <https://doi.org/10.1504/jibed.2004.007860>
- James, G. (2012). How to achieve true job security. Available online: <https://www.inc.com/geoffreyjames/how-to-achieve-true-job-security.html> (accessed on 2 December 2023).
- Jayasingam, S., Lee, S. T., & Mohd Zain, K. N. (2021). Demystifying the life domain in work-life balance: A Malaysian perspective. *Current Psychology*, 42(1), 1–12. <https://doi.org/10.1007/s12144-021-01403-5>
- Joseph, D., Ng, K. Y., Koh, C., Ang, S. (2007). Turnover of Information Technology Professionals: A Narrative Review, Meta-Analytic Structural Equation Modeling, and Model Development. *MIS Quarterly*, 31(3), 547. <https://doi.org/10.2307/25148807>
- Kabir, I., Gunu, U., & Gwadabe, Z. L. (2023). Decent Work Environment and Work-Life Balance: Empirical Analysis of Banking Sector of Hostile Environments. *Journal of Family and Economic Issues*, 44(2), 297–312. <https://doi.org/10.1007/s10834-022-09843-2>
- Kaliprasad, M. (2006). The human factor: Attracting retaining and motivating capable people. *Cost Engineering*, 48(6), 20–26.
- Kaliyamoorthy, S., Al-Shibami, A. H., Nusari, M., & Ghosh, A. (2018). Effect of motivation on employee retention in Malaysian hotels. *International Journal of Management and HumanScience (IJMHS)*, 2(1), 37–42.
- Kam, P. (2020). Available online: <https://learntechasia.com/job-upskilling-reskilling-malaysia/> (accessed on 2 December 2023).
- Kampkötter, P. (2016). Performance appraisals and job satisfaction. *The International Journal of Human Resource Management*, 28(5), 750–774. <https://doi.org/10.1080/09585192.2015.1109538>

- Kanwar, Y. P. S., Singh, A. K., & Kodwani, A. D. (2009). Work—Life Balance and Burnout as Predictors of Job Satisfaction in the IT-ITES Industry. *Vision: The Journal of Business Perspective*, 13(2), 1–12. <https://doi.org/10.1177/097226290901300201>
- Khan, R.A., Arif, A. and Rehman, A. (2015). Impact of Training and Development Practices on Employees' Job Satisfaction at Pakistan International Airline. *Journal of Business Studies*, 11(1). <https://doi.org/10.46745/ilma.jbs.2015.11.01.11>
- Kim, K. Y., Eisenberger, R., Takeuchi, R., & Baik, K. (2022). Organizational-level perceived support enhances organizational profitability. *Journal of Applied Psychology*, 107(12), 2176–2196.
- Kim, K. Y., Messersmith, J. G., & Eisenberger, R. (2022). Social distancing initiatives and perceived organizational support: It's the intended beneficiary that counts. *Group & Organization Management*.
- Kinnie, N., Hutchinson, S., Purcell, J., et al. (2005). Satisfaction with HR practices and commitment to the organisation: why one size does not fit all. *Human Resource Management Journal*, 15(4), 9–29. <https://doi.org/10.1111/j.1748-8583.2005.tb00293.x>
- Koon, V. Y. (2020). A multilevel analysis of work-life balance practices. *Asia Pacific Journal of Human Resources*.
- Koteswari, D., Dhanalakshmi, D. R., & Tiwari, R. (2020). The Role of Training and Work Environment on Retention and Job Satisfaction as a Mediator at Startups, Bangalore. *International Journal of Management*, 11(9), 1181–1191.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., et al. (2015). Perceived Organizational Support: A Meta-Analytic Evaluation of Organizational Support Theory. *Journal of Management*, 43(6), 1854–1884. <https://doi.org/10.1177/0149206315575554>
- Lucky, E. O. I., Minai, M. S., & Abdul Rahman, H. (2013). An empirical examination of the effect of entrepreneurs' biological makeup on the firm performance. *International Business Management*, 7(3), 127–134.
- Lusewa, H. O. (2015). Effect of training program on employee retention in Tanzania: A case study of Kilindi district council in Tanga region. UDOM Institutional Repository at The University of Dodoma. University of Dodoma Institutional Repository.
- Mahmood, N. A., Binti Saad, A., Binti Fakruddin, F. D., et al. (2021). The Relationship between Motivational Factors and Job Satisfaction. *Computing Technology and Information*, 18, 31–45.
- Manogharan, M. W., Thivaharan, T., & Rahman, R. A. (2018). Academic staff retention in Private Higher Education Institute- Case study of private colleges in Kuala Lumpur. *International Journal of Higher Education*, 7(3), 52–78.
- MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48: 197–221.
- Meltz, N. M. (2005). Job Security in Canada. *Relations Industrielles*, 44(1), 149–161. <https://doi.org/10.7202/050477ar>
- Merrick, J. (2021). Available online: https://employmenthero.com/nz/blog/employee-recognition-program/?gclid=CjwKCAjw-LZBhB4EiwA76YzOYfgUk-GWITR8pP8oovIF64AOW_CWsuuyN5j-qqvHQbI58wQRSVWFxoCEFUAQvD_BwE&gclid=aw.ds (accessed on 2 December 2023).
- MI. (2023). Available online: <https://www.mordorintelligence.com/industry-reports/malaysia-ict-market> (accessed on 2 December 2023).
- Mida. (2021). Available online: <https://www.mida.gov.my/industries/services/business-services/ict-services/> (accessed on 2 December 2023).
- Mosaybian, N., & Jafari, M. (2017). The Study of Relationship between Job Security and Organizational Commitment. Kuwait Chapter of Arabian Journal of Business and Management Review, 6(8), 5–8. <https://doi.org/10.12816/0036703>
- Mukherjee, A. (2019). A Malaysian Perspective on Work-life Balance. Available online: <https://hrasiamedia.com/featured/2019/a-malaysianperspective-on-work-life-balance/> (accessed on 2 December 2023).
- Mweru, M. C., & Muya, M. (2015). Features of Resource Based View Theory: An Effective Strategy in Outsourcing. *International Journal of Management and Commerce Innovations*, 3(2), 215–218.
- Ndungu, D. N. (2017). The Effects of Rewards and Recognition on Employee Performance in Public Educational Institutions: A Case of Kenyatta University, Kenya. *Global Journal of Management and Business Research: An Administration and Management*, 17(1), 42–68.
- Noor, K. (2011). Work-life balance and intention to leave among academics in Malaysian public higher education institutions. *International Journal of Business and Social Science*, 2(11), 240–248.
- Noor, N. M., & Mohd, N. D. (2015). Work-life balance policies in Malaysia: Theory and practice. In: Lu, L., Cooper C. L. (editors). *Handbook of research on work-life balance in Asia*. Edward Elgar Publishing. pp. 207–235.
- Noor, A., & Teng, L. S. (2017). Work-Life Balance and Job Satisfaction among Working Adults in Malaysia: The Role of Gender and Race as Moderators. *Journal of Economics, Business and Management*, 5(1).
- Nunnally, J. C., & Bernstein, I. H. (1994). The Assessment of Reliability. *Psychometric Theory*, 3, 248–292.

- Obisi, C. (2001). Employee development, issues and dimensions. *Unical Journal of Public Administrator*, 1, 15–36.
- Ogbu, O. J., & Idowu, O. J. (2017). Impact of Employee Training on Organizational Performance A Study of Selected Insurance Firms in Abuja-Nigeria. *European Journal of Business and Management*.
- Okechukwu, W. (2017). Influence of Training and Development, Employee Performance on Job Satisfaction Among the Staff of School of Technology Management and Logistics, Universiti Utara Malaysia (STML, UUM). *Journal of Technology Management and Business*, 4(1), 1–16.
- Okpara, J. O. (2004). Personal characteristics as predictors of job satisfaction. *Information Technology & People*, 17(3), 327–338. <https://doi.org/10.1108/09593840410554247>
- Oldham, G. R., & Fried, Y. (2016). Job design research and theory: Past, present and future. *Organizational Behavior and Human Decision Processes*, 136, 20–35. <https://doi.org/10.1016/j.obhdp.2016.05.002>
- Ollier-Malaterre, A. (2010). Contributions of work—life and resilience initiatives to the individual/organization relationship. *Human Relations*, 63(1), 41–62. <https://doi.org/10.1177/0018726709342458>
- Özbağ, G. K., & Ceyhan, G. Ç. (2014). Does Job Satisfaction Mediate the Relationship between Work-family Conflict and Turnover? A Study of Turkish Marine Pilots. *Procedia-Social and Behavioral Sciences*, 140, 643–649. <https://doi.org/10.1016/j.sbspro.2014.04.485>
- Palani, K. (2013). Challenges of HRM in 21st Century: A New Paradigm for Corporate Excellence. *ASM’s International E-Journal of Ongoing Reseach in Management and IT*.
- Panda, A., & Sahoo, C. K. (2021). Work–life balance, retention of professionals and psychological empowerment: an empirical validation. *European Journal of Management Studies*, 26(2/3), 103–123. <https://doi.org/10.1108/ejms-12-2020-0003>
- Perrigino, M. B., Dunford, B. B., & Wilson, K. S. (2018). Work–Family Backlash: The “Dark Side” of Work–Life Balance (WLB) Policies. *Academy of Management Annals*, 12(2), 600–630. <https://doi.org/10.5465/annals.2016.0077>
- Parabakarana, D., & Abdul Lasi, M. (2021). Human Resource Management Practices and Its Impact on Employee Engagement and Performance in an Organization a Study on Labour Force in Malaysia. *Malaysian E Commerce Journal*, 5(1), 29–35. <https://doi.org/10.26480/mecj.01.2021.29.35>
- Pocock, B. (2005). Work-life “balance” in Australia: Limited progress, dim prospects. *Asia Pacific Journal of Human Resources*, 43(2), 198–209. <https://doi.org/10.1177/1038411105055058>
- Reportlinker. (2023). Available online: <https://www.reportlinker.com/report-summary/ICT/149761/Malaysian-ICT-Industry.html> (accessed on 2 December 2023).
- Riley, D. (2006). Turnover intentions: The mediation effects of job satisfaction, affective commitment and continuance commitment [PhD thesis]. University of Waikato, Hamilton, New Zealand.
- Rezaei, S. (2015). Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach. *Journal of Retailing and Consumer Services*, 22, 1–15. <https://doi.org/10.1016/j.jretconser.2014.09.001>
- Rothaermel, F. T. (2012). *Strat.Mgmt: Concepts and Cases*. McGraw-Hill.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600–619. <https://doi.org/10.1108/02683940610690169>
- Samikon, S. A., & Dagogo, B. H. (2022). Factors Impacting Work-Life Balance for Employees in Organizations from Malaysia. *International Journal of Novel Research in Healthcare and Nursing*, 9(3), 123–133.
- Sandhya, K., & Pradeep Kumar, D. (2011). Employee Retention by Motivation. *Indian Journal of Science and Technology*, 4(12), 1778–1782. <https://doi.org/10.17485/ijst/2011/v4i12.34>
- Schuler, R. S., Dowling, P. J., & DeCieri, H. (1993). An integrative framework of strategic international human resource management. *Journal of Management*, 19, 419–460.
- Schwab, K. (2017). Available online: <https://weforum.ent.box.com/s/dari4dktg4jt2g9xo2o5pkspatvawdb> (accessed on 2 December 2023).
- Senol, F. (2011). The effect of job security on the perception of external motivational tools: a study in hotel businesses. *Journal of Economic and Social Studies*, 1(2), 33.
- Shazwani, M. S. (2012). Relationship between hygiene factor dimensions and intention to leave among prison personnel: A study in northern region of Malaysia [PhD thesis]. University Utara Malaysia.
- SHRM. (2023). Available online: <https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/practicingstrategichumanresources.aspx> (accessed on 2 December 2023).

- Sousa-Poza, A., & Henneberger, F. (2004). Analyzing Job Mobility with Job Turnover Intentions: An International Comparative Study. *Journal of Economic Issues*, 38(1), 113–137. <https://doi.org/10.1080/00213624.2004.11506667>
- Stajkovic, A. D., Bandura, A., Locke, E. A., et al. (2018). Test of three conceptual models of influence of the big five personality traits and self-efficacy on academic performance: A meta-analytic path-analysis. *Personality and Individual Differences*, 120, 238–245. <https://doi.org/10.1016/j.paid.2017.08.014>
- Swart, J., Mann, C., Brown, S., & Price, A. (2005). *Human Resource Development: Strategy and Tactics*. Elsevier Butterworth-Heinemann Publications.
- Taha, S. (2020). *The Underpinning Theories of Human Resource Management*. Course: Advance Human Resource Management. University of Kurdistan.
- Tahir, N., Yousafzai, I. K., Yousafzai, I. K., et al. (2014). The Impact of Training and Development on Employees Performance and Productivity A case study of United Bank Limited Peshawar City, KPK, Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 4(4). <https://doi.org/10.6007/ijarbss/v4-i4/756>
- Thamotharan, N., Abdul Majid, A. H., & Jamaluddin, N. (2021). Influence of Quality of Work life, Perceived Union Effectiveness and Job Security on Union Commitment Among Bank Employees. *Jurnal Manajemen Dan Kewirausahaan*, 23(1), 76–83. <https://doi.org/10.9744/jmk.23.1.76-83>
- Thesundaydaily. (2016). Available online: <https://www.thesundaydaily.my/archive/1764746-ESARCH361717> (accessed on 2 December 2023).
- Tirta, A. H., & Erika, 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 & Retail Management Research*, 14(03). <https://doi.org/10.24052/jbrmr/v14is03/art-09>
- Umesh, B., Santosh, R., Peter, S., & Renu, R. (2013). Organizational climate and managerial effectiveness: An Indian perspective. *International Journal of Organizational Analysis*.
- Virick, M., Lilly, J. D., & Casper, W. J. (2007). Doing more with less. *Career Development International*, 12(5), 463–480. <https://doi.org/10.1108/13620430710773772>
- Wickramasinghe, V. (2010). Impact of time demands of work on job satisfaction and turnover intention. *Strategic Outsourcing: An International Journal*, 3(3), 246–255. <https://doi.org/10.1108/17538291011093820>
- Wöcke, A., & Heymann, M. (2012). Impact of demographic variables on voluntary labour turnover in South Africa. *The International Journal of Human Resource Management*, 23(16), 3479–3494. <https://doi.org/10.1080/09585192.2011.639028>
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2012). Human resources and the resource based view of the firm. *Journal of Management*, 27, 701–721.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., et al. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121–141. <https://doi.org/10.1037/1072-5245.14.2.121>
- Yang, Y. (2013). Are Supervisory Feedback Messages a Motivational Factor to Enhance Employee Retention?
- Yoh. (2021). Available online: <https://www.yoh.com/blog/importance-of-employee-job-security-for-workplace-success> (accessed on 2 December 2023).