



## Career Shocks as Predictors of Perceived Employability and Career Development Opportunities: How relevant are they for Nigerian Firms?

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**ABSTRACT:** Whilst there is abundance of studies on perceived employability, and career development opportunities, little is known about whether career shocks serve as predictors of perceived employability and career development opportunities among private companies in Nigeria. In view of this literature gap, this study investigated career shocks as predictors of perceived employability and career development opportunities in Nigeria. Sample of 500 respondents who are employees of selected private companies were used. The independent variable is career shocks (measured by frequency and intensity of shocks) while the dependent variables are perceived employability and career development opportunities. Using a survey research design, data obtained were analyzed using descriptive (mean, standard deviation, kurtosis, skewness and Pearson correlation) and inferential (multiple regression models) statistical techniques. Findings indicated that career shocks (particularly the frequency and intensity) significant positively predict perceived employability and career development opportunities of employees in Nigeria. The study therefore concludes that career shocks are relevant for Nigerian firms in terms of the employee perceived employability and career development opportunities. The study recommends that Nigerian private firms should offer programmes aimed at supporting employees in areas of on the job coaching and mentoring; this will enable them reduce the frequency and intensity of shocks associated with employees career. Also, there is the need for Nigerian private firms to develop stern career development initiatives aimed at decreasing frequency and intensity of career shocks.

**KEYWORDS:** Career shocks; Perceived employability; Private Companies; Career development opportunities: Nigeria

**JEL Classifications:** M12; M19

### 1. INTRODUCTION

Career shocks are upsetting occurrences that alter many workers' expected career routes, casting doubt on the widely held belief that a professional path can be self-designed and controlled. According to Hardy, et al (2025), employees are prompted to consider and ponder on their values, goals, and purpose by these shocks, which can happen at different phases of their careers. Li, et al (2025) noted that after a series of shocks, a "final straw" shock occurs when a triggering event "may not initiate turnover deliberation but confirm earlier deliberations." Regardless of whether the deliberation process is initiated by a single, sudden shock or by a last straw shock experience, both types of shocks have ability to draw attention to image breaches that may have previously gone overlooked or unanalysed.

The literature has shown that perceived employability and career development opportunities are influenced by career shocks (Akkermans, et al, 2021; Froehlich, 2021). Notably, when one or more employees depart freely, the remaining employees may suffer from career shocks. The remaining employees can believe that their reputation is being harmed and that their psychological contracts with the firm are not in line. Two more factors that can persuade the remaining employees to leave voluntarily are increases in workload and departure of co-workers who shared the workload (Gunawan, et al, 2024).

Numerous studies have found that career shocks are good predictors of career development opportunities and perceived employability (Laulié & Morgeson, 2021; Siyabonga & Nirmala, 2025, Smith, et al, 2025). Since the significance of career development opportunities and perceived employability differs by sector, this study is required to gain a better understanding of career development opportunities, perceived employability and their link to career shocks. However, the fact that most studies on career shocks rely on interview data or measurable attrition from leavers is a significant problem (Hofer, Spurk & Hirschi, 2021; Ari et al, 2024)

According to prior studies, career shocks frequently precede intention to leave voluntarily, and identifying when a shock (its intensity and frequency) has occurred may operate as a warning indicator for both the intention and actual turnover (Akkermans et al., 2021).

Hence, this study investigated the relationship between career shocks and perceived employability and career development opportunities of Nigerian private employees. The study's dependent variables are perceived employability and career growth prospects, while the independent variables are career shocks (measured in terms of frequency and intensity of career shocks).

## **2. LITERATURE REVIEW**

### **2.1 Career Shocks**

A career can be defined as the series of work experiences and roles that an individual pursues throughout their life. Gibson (2023) posits that career encompass not only paid employment but also education, training, volunteer work, and life experiences that contribute to both professional and personal development. Accordingly, Chandra (2023) divided a career into three mainstreams: long-term, personal development and choices. Long-term encompasses more than just a job; it involves growth, learning, and progression; personal development includes the development of skills, competencies, values, and identity related to one's work life, while choices/goals reflect an individual's aspirations and choices regarding their professional life.

Similarly, Darwinbox (2024) described a career as a succession of roles that an individual plays throughout the course of their lifetime. It also describes how a person's job experience changes over time. "A career is a pattern of work-related experience that spans the course of a person's life," according to Gabby (2023). Based on the aforementioned, a career can take the shape of a paid or volunteer position that aims to advance a person's professional and personal development over an extended period of time. Since career shock is the subject of this study, it will receive a lot of attention. An abrupt and important occurrence in an employee's career that causes them to reflect or re-evaluate is referred to as "career shock."

Career shock, according to Akeem (2020), is characterised as an upsetting and unexpected event that is, at least partially, brought on by circumstances outside of an employee's control and that prompts a conscious consideration of their career (e.g. being laid off, major organisational change(s), unexpected promotion, or career changes, etc.). According to Froehlich (2021), career shocks are noteworthy occurrences that prompt a reassessment of an employee's professional path; they are reportedly unexpected and may have favourable or unfavourable effects. According to Hofer, Spurk, and Hirschi (2021), career shocks are, at least in part, beyond an employee's control and, more importantly, they force them to think carefully about their future.

According to Wordsworth and Nilakant (2021) and Miller (2023), these shocks are different from regular career events since they are typically unanticipated and have the potential to significantly impact an employee's career path. Researchers have classified career shocks according to a number of characteristics, including: Predictability (whether shock is expected, like an employee's retirement, or unexpected, like a company downsizing); Duration (whether shock has a temporary or long-lasting effect); Intensity (magnitude of impact on employees); Frequency (how frequently the shock occurs to employees); and Valence (this brings about positive outcome, like an unexpected promotion or negative outcome, like sudden job loss) (AlKahtani et al, 2021; Akkermans et al, 2021).

The impact of career shocks on career decision-making, transitions, and other work-related outcomes in a more competitive and unpredictable labour market has been the subject of empirical research over the years. However, these studies have not determined the extent to which career shocks influence employees' intentions to leave the public sector voluntarily, especially in developing nations like Nigeria. Because of this disparity, earlier research has shown that career shocks have an impact on both short-term employment decisions and long-term career paths. For example, Akkermans et al. (2018) demonstrated that, primarily for workers with great career flexibility, career shocks result in significant career swings.

Surprisingly, research has shown that workers or people from diverse cultural and ethnic origins may react differently to career shocks (Nyamori, 2020; Parsns, 2022; Gartner, 2024). Additionally, the problem of unforeseen events like career shocks was not extensively studied in the early 1990s when controllable career paths and self-career management emerged (Akkermans et al., 2021). There is still a lot to learn about career shocks, even if we now know a lot more about them than we did a few years ago. Most recently, the literature on strategic human resource management has come to recognise career shocks as crucial components of career growth (Akeem, 2020; Alison, 2020; Tuvulla1 & Byaruhanga, 2021; Mohammed, Mohammed & Gana, 2022; Ofobruku & Nwakoby, 2023).

Beyond just defining career shocks, recent research has examined their dimensional characteristics, including valence, frequency, strength, duration, and controllability. For individuals, career counsellors, and organisational leaders who want to promote successful career management in changing situations, it is essential to comprehend these elements. Understanding how these occurrences (career shocks) affect career decisions/outcomes and, more significantly, voluntary turnover intention is crucial given the dynamic nature of the present labour market, where people actively seek to change jobs in order to pursue more favourable opportunities. Based on the aforementioned, this study aims to examine the effects of career shocks at various levels (frequency and intensity) on private sector employees' perceived employability and career development opportunities. By comprehending career shocks and their effects on workers, the private sector can create plans to enhance perceived employability and career development opportunities for workforce.

## **2.2 Perceived Employability**

The structure and complexity of occupations have changed significantly as a result of the aforementioned advancements, with an emphasis on employability skills (Abdelwahed, et al, 2024). A person's subjective evaluation of their capacity to find and keep a job, either inside their current company or in another one, is known as perceived employability, or PE (Othman et al., 2022). It records opinions regarding how easy or likely it is to get a new job in the event that one's current one ends, giving subjective opinions more weight than objective indicators like credentials or labour market conditions.

As a result, employability self-efficacy - the belief in one's potential to succeed in the labour market and perceived employability are closely related. Additionally, it supports the notion that perceived employability, which is founded on Hobfoll's (1989) conservation of resources theory, is a personal resource that guards against stress. Bhat, et al (2024) claimed that career formation theories and work embeddedness are related to perceived employability. It offers proof that a person's perceived employability reflects their capacity to adjust to changes in their job and their readiness to deal with them.

Personal characteristics (personality traits like proactivity, adaptability, and optimism positively influence perceived employability), job-related factors (e.g., training opportunities, job autonomy, and performance feedback increase perceived employability), contextual factors (labour market conditions and organisational support also impact perceived employability perceptions) and social capital (networks and relationships provide information and support that improve perceived employability) are some of the factors that have been found to influence perceived employability (De Cuyper, et al, 2019; Dewi & Nurhayati, 2021).

Perceived employability has been linked to a number of important employee attitudes and behaviours, such as turnover intentions and actual turnover. Perceived employability, on the other hand, buffers the stress of job insecurity in some situations, lowering turnover, job search behaviour (people with higher perceived employability are more active in their career exploration and job search), and psychological well-being (perceived employability is positively associated with job satisfaction, reduced stress, and better mental health, as it increases a sense of control and career adaptability, which fosters flexibility and resilience in managing career changes) (Marsyah & Widigdo, 2024). People who feel certain they can discover better chances tend to have higher turnover intentions when they have a high perceived employability (Saluy & Nurhayati, 2024).

## **2.3 Career Development Opportunities**

Career development is an ongoing, lifelong process that helps people manage and advance in their careers, including learning new skills, knowledge, and experiences as well as making informed decisions and taking action to further professional development and achieve long-term career goals. Activities such as education, training, networking, mentorship, and career planning are all part of this process, which is essential for retaining talent on staff and enhancing job performance (Gartner, 2024). The three primary facets of career development covered in the literature are individual, organisational, and societal factors. The individual dimension is the first and focuses on self-awareness, which includes understanding one's own values, goals, and strengths and weaknesses. By employing self-assessment to identify areas for improvement and advancement, people can make well-informed decisions regarding their career paths (Sharma, et al, 2025).

The second organisational factor focusses on employers and organisations that play a crucial role in fostering professional growth by providing resources like career pathways, coaching, training, and mentorship. These organisational resources help employees acquire the skills and knowledge necessary to advance in their professions (Gartner, 2024). Third, the social component emphasises on how social, economic, and cultural issues impact chances for professional development. Demographics such as gender, race, and class can thereby influence a person's professional path by influencing their access to high-quality education, job opportunities, and career advancement (Sharma, et al, 2025).

According to Jamal and Siddiqui (2020), there are repercussions for professional development prospects, such as enhanced job satisfaction and performance, career advancement, and flexibility in a changing work environment. Ongoing learning and skill development are the primary factors that lead to improved job satisfaction and performance because they make people feel more capable and involved in their work (Sharma, et al, 2025). The second definition of career advancement is strategic goal-setting and career planning that assist individuals in identifying and taking advantage of opportunities for career advancement, whether they are provided by new companies/their current company (Sharma, et al, 2025).

Third is the adaptability to changing work environments, which empowers individuals to be adaptable and equips them with the knowledge and skills necessary to cope with change and seize new opportunities (Gartner, 2024). As a result, career development opportunities are a complicated and continuous process that includes goal-setting, strategic planning, skill acquisition, and self-evaluation. Personal objectives, organisational support, and societal factors all have an impact. By actively engaging in career development, individuals can enhance their professional growth, achieve their career goals, and adapt to the evolving demands of the labour market.

## 2.4 Theoretical Framework

The unfolding model of voluntary that Lee and Mitchell (1996) created serves as the foundation for our investigation. According to image theory, the behavioural model is predicated on the notion that people form opinions based on three images (Wong, Wong & Sudhakar, 2024). The first picture consists of one's morals, values, and beliefs. The second image is made up of one's future goals and vision, and the third image is made up of the strategies people use to reach their objectives. When making judgements based on image theory, people typically employ screening, which is the process of looking for discrepancies between their goals and beliefs and what is known about the current organisation and work.

In their process model of voluntary turnover, Lee and Mitchell (1994) offer four paths: one feature-precipitated path (job satisfaction) and three shock-precipitated paths. Path 1 of the Unfolding Model includes personal professional shocks that trigger a plan and force an employee to leave their current workplace. Path 2 is driven by job-related shocks that damage the employee's reputation and cause them to quit due to career shocks and other factors without thinking about other options or locating another job (Abdelwahed, et al, 2024; Ari et al, 2023).

By examining gender differences, alternate attractiveness levels, and the causes of the different paths, researchers have expanded the Unfolding Model (Laulié & Morgeson, 2021). Career shocks can make an employee reassess a variety of factors, including job satisfaction and person-environment fit, according to the Unfolding Model. The fourth road of dissatisfaction may begin with a professional shock that ultimately results in persistent discontent. Despite the possibility of feature-based discontent along the fourth path, a study by Holtom et al. (2017) suggests that career shock is more likely to be an antecedent in voluntary turnover intention and behaviour.

## 3. METHODOLOGY

The study used the survey research design and the study population comprised employees in ten (10) private organizations in Delta and Edo States, Nigeria. The study employed Taro-Yamane (1964) sample size determination formula in obtaining a sample of six hundred and five (605) respondents. The main instrument of data collection was questionnaire which was administered to the 605 respondents, out of which five hundred (500) were fully retrieved and found useable. The independent variable is career shocks (measured in terms of frequency and intensity of shocks) while the dependent variables are perceived employability and career development opportunities.

The questionnaire was designed on a 4-point scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). Cronbach alpha reliability test was carried out to determine the internal consistency of the questionnaire. The Cronbach alpha coefficient were found to be above the recommended threshold of 0.6 (Frequency of shock = 0.88; Intensity of shock = 0.79; Perceived employability = 0.71; Career development opportunities = 0.80). Given the dependent and independent variables of the study, the following empirical models were estimated:

$$\begin{aligned} \text{Peem} &= f(\text{Freqshock}, \text{Inoshock}) & - & \text{eq. 1} \\ \text{Cadevopp} &= f(\text{Freqshock}, \text{Inoshock}) & - & \text{eq. 2} \end{aligned}$$

Equations 1-2 were the implicit forms of the regression models; equations 3-4 was expressed in their explicit forms as follows:

$$\begin{aligned} \text{Peem}_i &= \beta_0 + \beta_1 \text{Freqshock}_i + \beta_2 \text{Inoshock}_i + u_i & - & \text{eq. 3} \\ \text{Cadevopp}_i &= \beta_0 + \beta_1 \text{Freqshock}_i + \beta_2 \text{Inoshock}_i + u_i & - & \text{eq. 4} \end{aligned}$$

Where: Freqshock = Frequency of Career Shock; Inoshock = Intensity of Career Shock; Peem = Perceived Employability; Cadevopp = Career Development Opportunities;  $U$  = Error term;  $B$  = Intercept;  $\beta_1$ - $\beta_2$  = Coefficients of Independent Variables. Data obtained were analyzed by means of descriptive (mean, standard deviation, kurtosis, skewness, and Pearson correlation) and inferential (multiple regression models) statistical techniques. Also, analysis of data was done via STATA 16 software. A-priori expectation is such that career shocks will significantly positively affect perceived employability and career development opportunities.

## 4. RESULTS

**Table 1: Summary of Descriptive Statistics**

Statistics	Peem	Cadevopp	Freqshock	Inoshock
Mean Score	3.110	3.510	3.211	3.277
Standard Deviation	0.314	0.302	0.431	0.311
Skewness	0.097	0.135	1.280	1.640
Kurtosis	2.183	2.494	2.339	2.127

Source: Computed by the Author (2025)

## Career Shocks as Predictors of Perceived Employability and Career Development Opportunities: How relevant are they for Nigerian Firms?

Table 1 is the summary of descriptive statistics on variables of career shocks, perceived employability and career development opportunities. The results revealed that mean scores of variables were above 2.5; this implies that respondents agree that career shocks (intensity and frequency) are good indicators for evaluating perceived employability and career development opportunities. The standard deviation indicates that respondents' viewpoint on career shocks, perceived employability and career development opportunities are not too dispersed. Also, kurtosis value showed that the variables are normally distributed while skewness result showed that the variables skewed towards one direction (positively skewed).

**Table 2: Summary of Descriptive Statistics**

Statistics	Peem	Cadevopp	Freqshock	Inoshock
Peem	1.0000			
Cadevopp	0.3180	1.0000		
Freqshock	0.0470	0.1033	1.0000	
Kurtosis	0.0170	0.0223	0.0073	1.0000

Source: Computed by the Author (2025)

Table 2 is the Pearson correlation for variables of career shocks, perceived employability and career development opportunities. The result showed that variables were positively correlated career shocks dimensions. This implies that there is positive relationship between career shocks, perceived employability and career development opportunities.

**Table 3: Multiple Regression Results for Career Shocks and Perceived Employability**

R-Squared = 0.690;					Model chi2(2) = 58.78
					Probability = 0.0000
Peem	Coef.	Std. Err.	z	P>z	
Freqshock	0.6053	0.0288	4.09		0.000
Inoshock	0.2699	0.0278	4.01		0.000
Constant	2.8331	0.2484	10.7		0.000

Source: Computed by the Author (2025)

Table 3 is multiple regression results for career shocks (freqshock and inoshock), perceived employability. The R-squared is 0.69 indicating that career shocks account for 69 percent of the systematic variation in perceived employability while the unaccounted variance is about 31 percent. This means that there were other variables that predict perceived employability, which were not included in the study's model. Model Chi2(2) (58.78) with probability of 0.000 suggests that it is significant at 5%; thus, career shocks predict perceived employability

The coefficients suggest that a unit increase in frequency and intensity of career shocks would lead to about 61 percent and 27 percent increase in perceived employability. The Z-scores were statistically significant in explaining perceived employability; thus, it was shown that career shocks have significant effect on perceived employability

**Table 4: Multiple Regression Results for Career Shocks and Career Development Opportunities**

R-Squared = 0.771;					Model chi2(2) = 103.01
					Probability = 0.0000
Peem	Coef.	Std. Err.	z	P>z	
Freqshock	0.6221	0.0149	6.01		0.000
Inoshock	0.4849	0.0313	5.22		0.000
Constant	0.2981	0.2393	12.1		0.000

Source: Computed by the Author (2025)

Table 4 is multiple regression results for career shocks (freqshock and inoshock), career development opportunities. The R-squared is 0.771 indicating that career shocks account for 77.1 percent of the systematic variation in career development opportunities while the unaccounted variance is about 23.9 percent. This means that there were other variables that predict career development opportunities, which were not included in the study's model. Model Chi2(2) (103.01) with probability of 0.0000 suggests that it is significant at 5%; thus, career shocks variables jointly predict career development opportunities.



The coefficients suggest that a unit increase in frequency and intensity of career shocks would lead to about 62 percent and 30 percent increase in career development opportunities. The Z-scores were statistically significant in explaining perceived employability; thus, it was shown that career shocks have significant effect on career development opportunities.

## 5. CONCLUSION AND RECOMMENDATIONS

The idea of a self-designed and controllable professional route, which has become popular in recent decades, is challenged by career shocks, which are disruptive events that alter the expected career pathways of many individuals. The shocks, which might happen at different points in an employee's career, make them think about and consider their goals, values, and purpose. Although there are many studies on career development opportunities and perceived employability, little is known about whether career shocks are reliable indicators of these factors in Nigerian private enterprises. This study investigated career shocks as predictors of perceived employability and career development opportunities in Nigeria in light of this vacuum in the management literature.

A sample of five hundred respondents who work for particular private companies was used. Descriptive (mean, standard deviation, minimum, maximum values, kurtosis, skewness, and Karl Pearson correlation) and inferential (multiple regression models) statistical techniques were used to analyse the data collected using a survey design. The results revealed that employees' perceptions of their employability and prospects for career development among Nigerian private firms are significantly positively correlated with career shocks, especially their frequency and intensity. Thus, the study concludes that career shocks are relevant for Nigerian firms in terms of the employee perceived employability and career development opportunities. It recommends that Nigerian private companies could provide initiatives to help staff members with on-the-job coaching and mentoring. This will help them lessen the frequency and severity of career-related shocks. In order to reduce the frequency and severity of career shocks, Nigerian private companies must also create strict career development programs.

## REFERENCES

1. Abdelwahed, N.A.A., Al Doghan, M.A., Saraih, U.N., & Soomro, B.A. (2024). Forecasting turnover intention: an analysis of psychological factors and perceived organizational support among healthcare professionals. *International Journal of Human Rights in Healthcare*, 17(5), 645-661
2. Akeem S. (2020). The perceived effect of staff development on organisational performance in selected First Banks in Lagos State, Nigeria. *Inkanyiso, Jnl Hum & Soc Sci* 12(1), 56-71
3. Akkermans, J., Collings, D. G., da Motta Veiga, S. P., Post, C., & Seibert, S. (2021). Toward a broader understanding of career shocks: Exploring interdisciplinary connections with research on job search, human resource management, entrepreneurship, and diversity. *Journal of Vocational Behavior*, 126, doi.org/10.1016/j.jvb.2021.103563
4. Ari A., Siti, A.W., Esti, L. & Hartono, A. (2023). Determinant of employee's turnover intention: the analysis of career development, organization justice, and trust in organization. *International Journal of Scientific Multidisciplinary Research*, 1(6), 679-690
5. Bhat, M.A., Khan, S.T., & Rainayee, R.A. (2024). Exploring the interplay between occupational stress and employee turnover intentions: Mediating Role of Organizational Commitment. *Delhi Business Review*, 25(1), 1-12
6. Darwinbox. (2024). What is career development?: Meaning and definition. *HR Glossary*, 49(7), 90-111.
7. De Cuyper, N., Baillien, E., De Witte, H., & De Witte, H. (2019). Job insecurity, perceived employability and targets of workplace bullying: a prospective study. *European Journal of Work and Organizational Psychology*, 28(1), 107-118.
8. Dewi, R. S. & Nurhayati, M. (2021). The effect of career development on turnover intention with organizational job satisfaction commitment. *European Journal of Business and Management Research*, 6(4), 11-18.
9. Froehlich, D.E. (2021). Career networks in shock: An agenda for in-COVID/post-COVID 142 career-related social capital. *Merits*, 1(1), 61-70. doi.org/10.3390/merits1010007
10. Gunawan, H., Pala, R., Tijjang, B., Razak, M., & Qur'ani, B. (2024). Global challenges of the mining industry: Effect of job insecurity and reward on turnover intention through job satisfaction. *SA Journal of Human Resource Management*, 22, 1-11.
11. Hardy, J.H., Thiel, C.E. Gibson, C., Klotz, A.C. & Barsa, A. (2025). *After shocks: The effects of internal sourcing on voluntary turnover*. Academy of Management 82nd annual meeting in Boston, pp, 1-40
12. Hofer, A., Spurk, D., & Hirschi, A. (2021). When and why do negative organization-related career shocks impair career optimism? A conditional indirect effect model. *Career Development International*, 26(4), 467-494. doi.org/10.1108/CDI-12-2018-0299
13. Laulié, L. & Morgeson, F. P. (2021). The end is just the beginning: Turnover events and their impact on those who remain. *Personnel Psychology*, 74(3), 387-409. doi.org/10.1111/peps.12422
14. Li, G., Zhang, G., Zhang, X., Martek, I. & Chen, D. (2025). The formation mechanism of employees' turnover intention in AEC industry. *Buildings* 15, 1061. doi.org/ 10.3390/buildings15071061

15. Marsyah, I. & Widigdo, A.M.N. (2024). The effect of work overload, organizational commitment, and development career on employee turnover intention. *Journal of Career Development*, 8(2), 1-9.
16. Naseer, M., Shah, S.M.A. & Afzal, R. (2025). Organizational predictors of turnover intentions among healthcare professionals in Pakistan: A quantitative analysis. *Journal of Political Stability Archive*, 3(1), 664-684.
17. Saluy, A.B. & Nurhayati, M. (2024). Career development strategies in maintaining turnover intention through organizational commitment. *Journal of Career Development*, 57(3), 1-12
18. Sharma, I., Tiwari, V., Gupta, S., & Rana, N. P. (2025). Examining the nexus between technostress and turnover intention: the moderating influence of PsyCap in Indian information management contexts. *Journal of Enterprise Information Management*, 38(2), 450-473.
19. Siyabonga, K. & Nirmala, D. (2025). Determinants of employee turnover intentions in higher education institutions: The case of Walter Sisulu University. *International Journal of Computational and Experimental Science and Engineering*, 11(3), 4512-4526
20. Smith, T.D., Mullins-Jaime, C., & Balogun, A.O. (2025). A path analysis study of relationships between long work hours, stress, burnout, job satisfaction and turnover intention among mine workers. *International Journal of Workplace Health Management*, 18(1), 86-100.
21. Wong, Y.F. Wong C.H. & Sudhakar, M. (2024). Relationship between job satisfaction and voluntary turnover intention in the manufacturing industry for sustainable growth: A systematic review. *International Journal of Advanced and Applied Sciences*, 11(7), 192-198