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**Article**

## Retaining skilled workers through motivation: The Malaysian case

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## MANAGEMENT | RESEARCH ARTICLE

# Retaining skilled workers through motivation: The Malaysian case

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**Abstract:** Skill drain is a loss of human capital, investment in education and training. This study examines if motivated, skilled workers at the firm level can retain skilled workers and mitigate the loss of human capital. A survey was conducted in Iskandar city to gather skilled workers' feedback on their current working conditions in Malaysia. Completed responses were tested for data adequacy, reliability, factor analysis and multiple-regression analysis. The findings of this study suggest that skilled workers perceive instrumentality as their primary motivating factor, to be followed by expectancy and valence. Instrumentality in intrinsic and monetary rewards is vital in retaining skilled workers. The practical implication of this study suggests that monetary rewards and non-monetary recognition are effective in motivating and retaining skilled workers. Firms in other developing countries may consider implementing instrumental strategies in the workplace to retain skilled workers.

**Subjects:** Economics and Development; Strategic Management; Human Resource Development

**Keywords:** Skilled workers; motivation; retention; Malaysia

### 1. Introduction

Skilled workers are employees who have acquired adequate education up to tertiary level, to be trained to be productive (Anglin & Gao, 2016), to be transformed to human capital (Ullah, 2018)

#### ABOUT THE AUTHOR

This study is the effort of a group of researchers trying to examine if motivated workers can be retained to reduce the problem of skill drain in Malaysia. Dr Ong coordinated the whole research project while Dr Choon, Dr Tan and Dr Kasuma were responsible for data collection, analysis and discussion. Dr Chong and Dr Yeap were in charge of discussion on the background of the study and conclusion.

#### PUBLIC INTEREST STATEMENT

Skilled workers are employees who have acquired tertiary level of education. They can be trained and transformed to human capital, a vital source of economic growth. A loss of human capital, also known as skill or brain drain, include a loss of investment in education, training, and skilled human resources. It is challenging to mitigate skill drain when host countries offer higher remuneration and better career opportunities to attract skilled workers. This study examines if motivated skilled workers can be retained to mitigate the loss of human capital. A survey was conducted to gather skilled workers' feedback on their current working conditions in Malaysia. The results of statistical analysis suggest that monetary rewards and non-monetary recognition are effective in motivating and retaining skilled workers. Firms in developing countries may consider implementing instrumental strategies in the workplace to retain skilled workers.

and contribute to economic growth (Islam et al., 2016; Wahid & Shah, 2015). Skilled workers are the human capital of economic development and growth for developing economies (Sarwar et al., 2021). Human capital utilisation (Tahir et al., 2020) and technological innovation (Roufagalas & Orlov, 2020) are significant sources of economic growth.

A loss of human capital, also known as skill or brain drain (Ullah, 2018), is usually unidirectional, from developing to developed countries (Ngoma & Ismail, 2013). Some of the problems of a loss of human capital include a loss of investment in education, training, and skilled human resources. Skill drain is the voluntary migration of the skilled workforce (Briggs, 2017; Teng, 1994). It is caused by prospects for better education, career opportunities and better quality of life (Raymer et al., 2019) in another host country.

Skill drain is a macroeconomic problem. It is an interdependent process induced by a change in economic conditions in the host and home country. The intensity of Malaysia's skill drain issue was first highlighted by the World Bank in its Economic Monitor report in 2011 (The World Bank, 2011). The main destination of skill drain from Malaysia is Singapore, Australia and the US (Tan et al., 2018). It is challenging to mitigate skill drain when host countries aggressively attract skilled workers to fill their employment gaps (Chow & Mathien, 2018). Host countries offer higher remuneration (Fong & Hassan, 2017; Ullah et al., 2019) and better career opportunities (Raymer et al., 2019) to attract skilled workers. Singapore, a more developed and competitive host that pays higher wages (Tan et al., 2018), is an apparent destination for Malaysians to emigrate.

Advocators of the "brain circulation effect" encouraged skilled citizens to return home after they had acquired skills and knowledge" that would contribute to the home country's growth (Chow & Mathien, 2018). The brain circulation idea postulated that knowledge sharing through collaboration between host and home countries would benefit home countries (Briggs, 2017). In reality, the chances of sharing between firms, especially competitors are rare. Those who emigrated would not return, when they have established their career path in a more competitive and highly paid work environment. Many Malaysians who had emigrated would not return due to family commitments and remuneration differences between the host and home country (Jauhar & Yusoff, 2011; Quah et al., 2014). Skill drain issue could not be solved by hoping that those who emigrated to return.

Following the World Bank's report, TalentCorp<sup>1</sup> was established to address skill drain issues in Malaysia. Tlaiss et al. (2017) and Redondo et al. (2019) found that skill drain issues could be mitigated when workers were retained. One effective strategy to retain workers is motivation (Sims & Chinta, 2019; Swain et al., 2020; Zhang et al., 2021).

The Expectancy Theory of Motivation asserts that workers' can be motivated through expectancy, instrumentality and valence. Employees believe that their efforts to do well in their tasks will result in expected outcomes, known as expectancy and anticipation of reward, known as instrumentality. The employees' perceived value of the reward obtained is known as valence. Expectancy Theory expresses that workers are motivated to exert effort in their tasks when instrumental in the desired outcomes (Sims & Chinta, 2019; Swain et al., 2020). An employee's desired outcome can be monetary and non-monetary rewards, such as an acknowledgment letter of the contribution made to the organization. An incentive-based motivation strategy is essential to keep workers in their job and remain motivated (Zhang et al., 2021).

A survey is conducted in Nusajaya, Johor, to answer two research questions. First, do expectancy, instrumentality and valence motivate skilled workers in Malaysia? Nusajaya is selected due to its close proximity to Singapore, the most preferred country for Malaysians to emigrate. Second, could motivated skilled workers be retained? This study aims to narrow the research gap on the retention of skilled<sup>2</sup> workers by investigating how motivation might retain skilled workers in Malaysia.

In the next section of this paper, a discussion of skill drain and motivation is held, followed by an elaboration of the research methodology. Finally, the following sections present the empirical findings, discussion and conclusion of the study.

## 2. Skill drain and expectancy

Malaysia is a middle-income country that requires its human capital to grow its developing economy. Currently, 27.5% (TalentCorp., 2019) of its 16.07 million labour force (Department of Statistics Malaysia, 2021) is skilled labour. The remaining 70% are moderate or low-skilled workers. Thus, skill drain will be detrimental to the development of Malaysia's economy when less than one-third of its labour force is skilled.

The pull factor of skill drain is higher monetary gains acquired from better remuneration (Fong & Hassan, 2017), career choice (Jauhar & Yusoff, 2011) and opportunities (Raymer et al., 2019) from the host country. Skill drain persists mainly due to the failure of home countries to retain them (Ullah, 2018). However, skill drain is not entirely caused by higher monetary gains from host countries. It is sometimes due to a "crisis in social values" like social injustice, poverty and corruption (Panagiotakopoulos, 2020).

Managers play a vital role in developing and retaining workers (Guðmundsdóttir & Helgudóttir, 2018). In the workplace, the Expectancy Theory hypothesised that motivation is subjected to the expectancy of performance, its related outcome and the valence of performance goal (De Oliveira et al., 2013; Zhang et al., 2021). The theory explained how workers choose between behavioural alternatives (Chen et al., 2016) based on their motivation levels.

Expectancy can be explained as the *effort* put forward by the worker. A worker with high expectancy will be motivated to work if they believe that their efforts will eventually lead to the desired performance goal (Bauer et al., 2016). Workers with high expectancy will be motivated to keep working. They can be retained through training and skill development (Boye Kuranchie-Mensah & Amponsah-Tawiah, 2016).

Instrumentality can explain how a worker perceives his or her *job performance* with a given outcome (Swain et al., 2020). Workers believe they will receive the desired result if their performance expectations are met. A highly motivated worker will be highly instrumental in his or her desired outcome. The desired outcome could be in the form of a pay increase, bonus payout, promotion and non-monetary rewards to acknowledge a sense of accomplishment.

Valence is associated with a worker's perception of an outcome or reward. It is not associated with the monetary value of the outcome or reward (Holland, 2011; Swain et al., 2020). Valence is how the worker perceives a particular outcome. A worker may not have a high valence over a job promotion that requires relocation if the promotion is perceived as a distraction of relocation. Skilled workers with higher expectations of an outcome will be more motivated to achieve their targeted performance goals.

Motivation is a multidimensional intrinsic and extrinsic effort that drives a particular behaviour (Canós-Darós, 2013; Lloyd & Mertens, 2018). Intrinsic motivation perceives effort in the completion of tasks as naturally rewarding. Extrinsic motivation includes acknowledging effort and monetary rewards that stimulate positive performance. As a result, intrinsically and extrinsically motivated workers will perform better and essentially retained (Johennesse & Chou, 2017). Promoting intrinsic motivation, such as goal setting and participation in decision-making, is as important as the availability of an extrinsic rewards system to retain skilled workers.

## 3. Methodology

A questionnaire is designed to gather respondents' feedback on motivation and retention in their workplace. The questionnaire is divided into three sections. First, the respondents are asked about

**Table 1. Respondents' demographic**

<b>Gender</b>	<b>Number (%)</b>
Male	79 (30.6%)
Female	179 (69.4%)
<b>Age</b>	
Below 21	10 (3.88%)
21–30	183 (70.93%)
31–40	52 (20.15%)
> 40	13 (5.04%)
<b>Marital Status</b>	
Single	140 (54.3%)
Married without children	63 (24.4%)
Married with children	55 (21.3%)
<b>Gross Monthly Income</b>	
< RM3,000	97 (37.60%)
RM3,001—RM8,000	142 (55.04%)
RM8,001—RM13,000	12 (4.65%)
> RM13,000	7 (2.71%)
<b>Education</b>	
Bachelor's Degree/ Higher Diploma	184 (71.32%)
Master's Degree	17 (6.59%)
PhD/Professional	57 (22.09%)

**Table 2. KMO and Bartlett's Test**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>0.889</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	3202.128***

Note. \*\*\*(\*\*) denotes 1% (5%) level of significance.

their demographic information such as age, gender, education level, and income levels. This questionnaire section is crucial to ensure that respondents had a bachelor's or higher diploma education level. Skilled workers are assumed to attain a bachelor's or higher diploma education. Second, respondents are asked about their motivation towards work based on expectancy, instrumentality and valence in their workplace. Third, respondents are asked about how a motivation effort will retain them in their workplace.

The questionnaire is designed as a seven Likert-scale survey to collect responses from workers in Iskandar Putri city in the state of Johor. Before data collection, the Gpower minimum sample size estimation for three predictors is 176, with an effect size of 0.10, at a 95% confidence interval. A survey of 320 questionnaires is randomly disseminated at several popular shopping malls around Iskandar Putri. Respondents are required to fill up the questionnaires on the spot to claim a gift voucher for their efforts. From the survey, 258 responses were collected. The post-doc sample size has sufficient predictive power of  $1-\beta$  error probability of 99.4% at a 5% significance level.

The Cronbach's Alpha reliability test is applied to ensure the internal consistency of scales in the model. The Kaiser-Meyer-Olkin (KMO) and Bartlett's tests determine sampling adequacy prior to factor analysis. Factor analysis is applied to reduce the inter-correlated measurement items. The varimax orthogonal rotations are used to set restrictions on the rotation of the factors solutions. Items of more than 50% loadings of the rotated component matrix were retained. The retained

factors of the factor analysis are regressed against the workers' opinions on job retention. From the multiple regression analysis, the significance of each variable is tested using a t-test.

#### 4. Findings

More than 69% of the respondents are female, and almost 71% are aged between 21 and 30 years old. Most of the respondents are young adults, 54.3% are single. More than 71% of the targeted respondents hold a bachelor's degree or higher diplomas, the rest has masters, Ph.D. or professional degrees. See, [Table 1](#) for details.

The KMO and Barlett's tests indicate sampling adequacy of 0.889 and chi-square of 3202.128, respectively, at a 1% significance level. See, [Table 2](#) for details.

Based on the principle of component analysis, items with more than 50% loading of the rotated component matrix are accepted as items for each variable. The Cronbach's Alpha reliability test results for instrumentality is  $\alpha = 0.917$ , expectancy is  $\alpha = 0.880$  and valence is  $\alpha = 0.844$ . All reliability scores are more than 0.7, indicating statistical significance in keeping skilled workers motivated in Iskandar Malaysia. See, [Table 3](#) for details.

The cumulative rotated sum of squares loading denotes the distribution of the Variance. Variance for instrumentality is 29.61% of the total Variance of motivated workers. Expectancy and valency account for about 22.1% and 16.8%, respectively. Workers who are instrumental in their job are highly motivated. They perceive their job performance as a sense of accomplishment when their effort is promptly recognised and rewarded. Non-monetary recognition and reward such as a letter of appreciation, congratulatory remarks and positive feedback from supervisors are just as effective as monetary rewards.

**Table 3. Workers' motivation**

	Rotated Component Matrix	% of Variance
<b>Instrumentality (<math>\alpha = 0.917</math>)</b>		
Monetary incentives	0.625	
Financial inclined	0.644	
Acknowledgement of contribution	0.836	
Praises and congratulatory remarks	0.895	29.609
Positive feedback	0.845	
Letter of recognition	0.842	
Immediate officer's recognition	0.873	
<b>Expectancy (<math>\alpha = 0.880</math>)</b>		
Ability to learn something new	0.590	
Clear career goals	0.731	
Career growth	0.812	
Supportive colleagues	0.738	22.064
Positive working environment	0.830	
Appreciation for effort/sacrifices	0.676	
<b>Valence (<math>\alpha = 0.844</math>)</b>		
Participation in decision making	0.844	
Sense of autonomy	0.848	
Responsibility in decision making	0.681	16.838
Personal enhancement	0.659	

**Table 4. Rotation sums of squared loadings**

Factors	Total	% of Variance	Cumulative %
Instrumentality	5.034	29.609	29.609
Expectancy	3.751	22.064	51.673
Valence	2.862	16.838	68.511

**Table 5. Summary of multiple regression analysis**

Independent Variables	Co-efficient( $\hat{\beta}_i$ )	t-statistics
(Constant)	4.763	119.785***
Expectancy	0.727	18.244***
Instrumentality	0.309	7.754***
Valence	0.227	5.685***

$R^2=0.626$  and Adjusted  $R^2=0.622$

Note. \*\*\*(\*\*) denotes 1% (5%) level of significance.

Those with high expectancy will be motivated to work when provided with a positive working environment, training and skill development opportunities that will eventually meet their performance goal. A supportive colleague and clear career path will also motivate workers through increased expectancy.

An improved valency with a sense of autonomy and the ability to participate in a firm's decision-making will keep workers motivated. Instrumentality, expectancy, and valence accounted for 68.51% of the total Variance to motive skilled workers in Iskandar Malaysia. See, Table 4 for details.

The retained factors are regressed against the surveyed workers' opinions on job retention. The t-tests indicate that all independent variables of expectancy, instrumentality and valence are statistically significant in retaining skilled workers at the 1% significance level. In addition, the  $R^2$  of the regression model is found to retain skilled workers by 62.6%. See, Table 5 for details.

## 5. Discussion and future research

Skill drain is a macroeconomic problem that can be solved at the micro-level. Expectancy, instrumentality and valence motivate skilled workers in Malaysia. If workers can be motivated, they can be convinced to build their careers in the home country and be effectively retained.

This study suggests that workers in Iskandar Malaysia are motivated by improved instrumentality, expectancy and valency towards their job. Instrumentality is the critical factor to motivate skilled workers. Besides being paid the ongoing market wage rate, other non-monetary recognition and reward such as a letter of appreciation, congratulatory remarks and positive feedback from supervisors are effective instrumental practices to motivate skilled workers. Therefore, skilled drain can be mitigated and talented workers can be retained at the firm level by incorporating non-monetary recognition in their employees' remuneration arrangements.

Skilled workers with high expectancy will anticipate that their effort would eventually precede their desired performance goal. Therefore, a conducive work environment, training and skill development programmes generate positive expectancy for skilled workers. This finding is supported by previous researchers, Boye Kuranchie-Mensah and Amponsah-Tawiah (2016) and (Zhang et al., 2021) where intrinsic rewards should be incorporated into extrinsic remuneration systems to retain skilled workers.



The sense of autonomy and the ability to participate in the firm's decision-making processes improve skilled workers' valency towards their work. Improved valence will also keep skilled workers motivated. The workers' sense of autonomy and perceived responsibility towards their career development are valences to mitigate skill turnover.

This study does not address cultural differences, workplace flexibility, and job engagement to retain skilled workers. Workers' relationships with their team members are affected mainly by their cultural identities. A good relationship does influence the intention to stay in the organisation (Alpar, 2020). Workplace flexibility and job engagement are the new norms in the workplace post-covid-19 pandemic (Zaman & Ansari, 2021).

## 6. Conclusion

It is difficult to call back skilled drain that has already left the country. It would be easier to persuade skilled talents to stay and refrain from leaving. This study concluded that skilled workers perceived instrumentality as their main motivating factor. They can be motivated and retained by enhancing both financial and non-financial rewards. The workers believe that pursuing their career goals and growth will improve their job performance. Employers that provide work-related training and enhancement will retain this pool of workers. The ability to make a decision and the sense of autonomy in work-related matters are positive valencies that motivate skilled workers. Workers motivated through instrumentality, expectancy and valency will most likely not emigrate.

The practical implication of this study indicates that monetary and non-monetary rewards effectively motivate and retain skilled workers. Firms in developing countries that face skill drain challenges may consider retaining their skilled workers by implementing instrumental strategies in the workplace.

This study is limited by the responses obtained in Nusajaya, Johor. Responses from skilled workers in other states in Malaysia may result in more ways to retain skilled workers. Future research could extend this study by examining the potentials of motivation in retaining skilled workers in terms of cultural differences, workplace flexibility and job engagement post-covid-19 endemic (Zaman & Ansari, 2021).

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### Notes

1. The Ministry of Human Resources of Malaysia set up Talent Corporation Malaysia Berhad, known as TalentCorp, was set up in 2011. TalentCorp is responsible to attract, nurture and retain the workforce in Malaysia.
2. In this study, skilled workers refer to those with at least a bachelor's degree of education.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

### References

- Alpar, P. (2020). Turnover intentions of employees of information technology outsourcing suppliers in Vietnam. *International Journal of Human Resources Development and Management*, 20(1), 43–60. <https://doi.org/10.1504/IJHRDM.2020.105109>
- Anglin, P., & Gao, Y. (2016). The Dynamics of Incentives, Productivity, and Operational Risk. *B.E. Journal of Theoretical Economics*, 16(1), 181–215. <http://doi.org/10.1515/bejte-2014-0043>
- Bauer, K. N., Orvis, K. A., Ely, K., & Surface, E. A. (2016). Re-examination of motivation in learning contexts: Meta-analytically investigating the role type of motivation plays in the prediction of key training outcomes. *Journal of Business and Psychology*, 31(1), 33–50. <https://doi.org/10.1007/s10869-015-9401-1>

- Boye Kuranchie-Mensah, E., & Amponsah-Tawiah, K. (2016). Employee motivation and work performance: A comparative study of mining companies in Ghana. *Journal of Industrial Engineering and Management*, 9(2), 255. <https://doi.org/10.3926/jiem.1530>
- Briggs, K. (2017). Innovative partnerships resulting from high-skilled emigration. *International Journal of Development Issues*, 16(2), 161–173. <https://doi.org/10.1108/IJDI-10-2016-0063>
- Canós-Darós, L. (2013). An algorithm to identify the most motivated employees. *Management Decision*, 51(4), 813–823. <https://doi.org/10.1108/00251741311326581>
- Chen, L., Ellis, S. C., & Suresh, N. (2016). A supplier development adoption framework using expectancy theory. *International Journal of Operations and Production Management*, 36(5), 592–615. <https://doi.org/10.1108/IJOPM-09-2013-0413>
- Chow, Y. W., & Mathien, L. (2018). Plugging the Malaysian “Great Brain Drain”: Recognition of Dual Citizenship. *Environment, Politics, and Society Research in Political Sociology*, 25, 133–149. <https://doi.org/https://doi.org/10.1108/S0895-993520180000025007>
- De Oliveira, L. M. B., Paiva Madruga, E. L., De Sá, M. A. D., & Regis, H. P. (2013). Motivation of Banco do Brasil employees to participate in programs of corporate volunteering: A review based on the theory of expectancy. *International Management Review*, 9(2), 45–49.
- Department of Statistics Malaysia. (2021). *Key statistics of labour force in Malaysia*. June 2021. Department of Statistics Malaysia, June 2021. 11
- Fong, T., & Hassan, Z. (2017). Factors contributing brain drain in Malaysia. *International Journal of Education, Learning and Training*, 2(2), 14–31.
- Guðmundsdóttir, S., & Helgudóttir, J. (2018). Selection and retention of talent. *International Journal of Work Organisation and Emotion*, 9(1), 36–44. <https://doi.org/10.1504/IJWOE.2018.10012434>
- Holland, D. V. (2011). Utility maximization? An expectancy view of entrepreneurial persistence. *Management Research Review*, 34(3), 337–352. <https://doi.org/10.1108/01409171111116349>
- Islam, R., Bashawir, A., Ghani, A., Kusuma, B., & Theseira, B. B. (2016). Education and Human Capital Effect on Malaysian Economic Growth, 6(4), 1722–1728.
- Jauhar, J., & Yusoff, Y. M. (2011). Brain drain: Propensity to leave by Malaysian professionals. 2(2), 119–123.
- Johennesse, L.-A., & Chou, T.-K. (2017). Employee perceptions of talent management effectiveness on retention. *Global Business and Management Research: An International Journal*, 9(3), 46–58.
- Lloyd, R., & Mertens, D. (2018). Expecting more out of expectancy theory history urges inclusion of the social context. *International Management Review*, 14(1), 28–42.
- Ngoma, A. L., & Ismail, N. W. (2013). The determinants of brain drain in developing countries. *International Journal of Social Economics*, 40(8), 744–754. <https://doi.org/10.1108/IJSE-05-2013-0109>
- Panagiotakopoulos, A. (2020). “Investigating the factors affecting brain drain in Greece: Looking beyond the obvious”. *World Journal of Entrepreneurship, Management and Sustainable Development*, 16(3), 207–218. <https://doi.org/10.1108/WJEMSD-10-2019-0076>
- Quah, C. H., Zainal, S. R. M., & Guok, G. E. (2014). Return Intentions of Malaysia’s Diaspora: The Push and Pull Factors. *Case Studies in Business and Management*, 1(1), 140. <https://doi.org/10.5296/csbm.v1i1.5863>
- Raymer, J., Guan, Q., & Ha, J. T. (2019). Overcoming data limitations to obtain migration flows for ASEAN countries. *Asian and Pacific Migration Journal*, 28(4), 385–414. <https://doi.org/10.1177/0117196819892344>
- Redondo, R., Sparrow, P., & Hernández-Lechuga, G. (2019). The effect of protean careers on talent retention: Examining the relationship between protean career orientation, organizational commitment, job satisfaction and intention to quit for talented workers. *International Journal of Human Resource Management*, 1–24. <https://doi.org/10.1080/09585192.2019.1579247>
- Roufagalas, J., & Orlov, A. G. (2020). Endogenous growth, human capital and the dynamic costs of recessions. *Journal of Economic Studies*, 47(2), 264–285. <https://doi.org/10.1108/JES-05-2018-0176>
- Sarwar, A., Khan, M. A., Sarwar, Z., & Khan, W. (2021). Financial development, human capital and its impact on economic growth of emerging countries. *Asian Journal of Economics and Banking*, 5(1), 86–100. <https://doi.org/10.1108/ajeb-06-2020-0015>
- Sims, R. L., & Chinta, R. (2019). The mediating role of entrepreneurial ambition in the relationship between entrepreneurial efficacy and entrepreneurial drive for female nascent entrepreneurs. *Gender in Management*, 35(1), 76–91. <https://doi.org/10.1108/GM-09-2019-0158>
- Swain, J., Kumlien, K., & Bond, A. (2020). An experiential exercise for teaching theories of work motivation: Using a game to teach equity and expectancy theories. *Organization Management Journal*, 17(3), 119–132. <https://doi.org/10.1108/omj-06-2019-0742>
- Tahir, M., Hayat, A., Rashid, K., Afridi, M. A., & Tariq, Y. Bin. (2020). Human capital and economic growth in OECD countries: some new insights. *Journal of Economic and Administrative Sciences*, 36(4), 367–380. <https://doi.org/10.1108/jeas-07-2019-0073>
- TalentCorp. (2019). *Key Figures - A Quick Glance at Malaysia*. <https://www.talentcorp.com.my/key-figures>
- Tan, K. G., Chuah, H. Y., & Luu, N. T. D. (2018). A case study on Malaysia and Singapore: Nexus amongst competitiveness, cost of living, wages, purchasing power and liveability. *Competitiveness Review*, 28(2), 172–193. <https://doi.org/10.1108/CR-09-2017-0062>
- Teng, Y. M. (1994). Brain drain or links to the world: Views on emigrants from Singapore. *Asian and Pacific Migration Journal*, 3(2–3), 411–429. <https://doi.org/10.1177/011719689400300208>
- Tlaiss, H. A., Martin, P., & Hofaidhllaoui, M. (2017). Talent retention: Evidence from a multinational firm in France. *Employee Relations*, 39(4), 426–445. <https://doi.org/10.1108/ER-07-2016-0130>
- Ullah, A. A. (2018). Skill drain from ASEAN countries: Can sending countries afford? *International Journal of Development Issues*, 17(2), 205–219. <https://doi.org/10.1108/IJDI-12-2017-0210>
- Ullah, A. A., Mohamad, S. M., Hassan, N. H., & Chatteraj, D. (2019). Global skills deficiency: Perspectives of skill mobility in Southeast Asian countries. *Asian Education and Development Studies*, 8(4), 416–432. <https://doi.org/10.1108/AEDS-12-2018-0185>
- Wahid, S., & Shah, A. (2015). Human Capital and Economic Growth: Evidence from Selected Asian Countries, 11(1), 22–32.
- The World Bank. (2011). *Malaysia economic monitor. Brain Drain*, 610.
- Zaman, S., & Ansari, A. H. (2021). Pathways to job engagement: Evidences from the software industry. *VINE Journal of Information and Knowledge Management Systems*. <https://doi.org/10.1108/VJIKMS-06-2020-0102>
- Zhang, J., Xie, C., Morrison, A. M., & Yang, Q. (2021). Incentives and motivations of Chinese destination management organization officers. *Tourism Review*, 76(6), 1197–1213. <https://doi.org/10.1108/TR-06-2020-0259>



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