

Integrative Career Readiness Model Using Psychological Construct

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Abstract

Career readiness is an important element needed by students to enable them to manage their transition from university to the career world. This study explores the psychological elements of personality and career efficacy in helping to predict the career readiness of undergraduate students at university. The study was conducted on 311 students in the final year of their first degree. By using SMARTPLS software through the Partial Least Square Structural Equation Modelling (PLS-SEM) measurement method, the significant relationship that exists between the variables studied proves the importance of personality traits and career efficacy in producing career readiness. The significant relationship between the variables then results in a model of career readiness that has coefficient of determination and predictive relevance at a moderate level. The elements studied in this study are psychological constructs that have been proven to have an impact on more positive behavioural changes. The relationship that exists between these elements can not only help produce graduates who have self-confidence but can also contribute to the production of graduates who have career readiness to function as human capital better in the career market.

Keywords: career readiness model, PLS SEM

1.0 INTRODUCTION

Career readiness is one of the issues that is often linked to graduate employability. A survey made of several employers found that they are less satisfied with the quality of graduates working in their organizations (Muhammad Hazrul, 2012; Zaliza and Safarin, 2014; Kwok, Gujral, and Chan, 2014; and Doe, 2015; Jobstreet, 2015; Zainal et al., 2012). Career readiness is getting more and more attention with the emergence of the Industrial Revolution 4.0 (IR4.0), which gives implications to the changes in skills required in the career market

(World Economy Forum, 2016). As one of the country's human capital sources, graduates receive a huge impact from this development. They need to equip themselves with career readiness that is in line with current needs in addition to competing for a place in the career market.

Various strategies have been implemented either at the university or the Malaysian Ministry of Higher Education level to achieve the objective. The implementation of career development programs, career interventions, upskilling, and reskilling programs in collaboration with various industries are held to give added value to graduates to help improve their marketability and career readiness. However, previous studies have found that career readiness issues such as lack of skills, personality and practical competence are among the contributing factors to graduates not working (Lim, Yet-Mee et al., 2016; Cheong, K., C. Hill, R. Fernandez-Chung, and Y. Leong, 2015; Hanapi, Z. and M. Nordin, 2014). Weak mastery of soft skills leads to difficulty in securing a career (Nayan and Asmaak Shafie, 2010) as well as problems related to attributes or behaviour being among the factors of their failure in getting a job (Rahmah Ismail et. al, 2011). A survey conducted by TalentCorp shows that some of those employed have characteristics of career unpreparedness (Dian and Mohd Zaidi in Bank Negara's Annual Report, 2016). There are also situations where employers are faced with students who lack career readiness from the aspect of self-confidence, causing them to fail to function well in an organization (Doe, 2015).

The existence of the problem is the basis of this study to examine the elements that can produce career readiness as well as develop a model that can be referred to in helping graduates achieve better career readiness. Confidence and resilience, being flexible and resilient against any challenge in the career market are among the elements that are recommended and required by graduates (Arnott and Carroll, 2013; Savickas and Porfeli, 2011; Ward et al, 2012; Gysbers, 2013; Coetzee and Harry, 2014; Cavanagh et al., 2015).

2.0 LITERATURE REVIEW

Career readiness is conceptualised as a holistic picture of students in directing and shaping their future including knowledge, skills, specific knowledge, and behaviour in the workplace (Gysber, 2013). Graduates need career readiness to help them get a job and succeed in their career (Cavanagh et al., 2015), manage themselves through the process of transition to the

career world and stay in the job without expecting too much help from others (Ward and Riddle, 2015). A graduate is said to have career readiness when they have completed the process of exploring, planning, and making decisions about their career (Super, 1984). Career readiness also refers to a situation where an individual has the ability and strong personal support without needing help from others to face the challenges of entering the career world (Ward et al, 2004). The ability is not only measured through academic achievement but also includes various aspects of behaviour such as perseverance, time management and interpersonal skills possessed by a student to successfully transition from university to the world of work (Cavanagh et al, 2015). On that basis, career readiness can also be

conceptualised as an individual's career maturity in planning, exploring, and deciding career-related aspects (Maznizam Mansor and Abdullah Mat Rashid, 2016).

2.1 Development of a Career Readiness Model

The approach of psychological elements in the development of the readiness model is proposed because of its ability to stimulate human performance, especially in the career world (Luthans et al, 2007; Wille et al, 2010). Thus, the Social Cognitive Career Theory (SCCT) has been referred to and becomes a basic guide to explain the research problem and identify elements that can be studied to help produce graduates' career readiness. The selection of this theory was made because of its ability to explain the transition scenario of graduates from the world of learning to the world of careers through the relationship between cognitive factors and individual factors (Foley and Lytle, 2015). This theory also explains how these variables interact with individual factors to help graduate career development. There are three elements involved in this theory which are individual factors, career efficacy and goals or expected results (Lent, Brown, and Hackett, 2000).

2.2 Personality and Career Readiness

Personality refers to a combination of traits or unique individual characteristics that influence how a person thinks, feels, and behaves (Mayer, Salovey and Caruso, 2008; Hartman and Betz, 2007). Owned personality traits can help explain the formation of each individual's behaviour such as make career decisions (Lei, 2014; Naswall et al, 2005; Wille et al, 2010; Rogers-sharer, 2015), able to face challenges in the career world (Thoresen et al. al, 2004; Lei, 2014; Rogers-sharer, 2015) and able to predict the future work performance (Lei, 2014). Personality is one of the determining factors of a person's success in learning which

involves the development and mastery of skills (Brunello, Schlotter & Brunello, 2011). The mastery of different skills between individuals is due to their different personality traits (Juhász, 2010; Wang et al, 2016; Sims, 2017) which affect the production of their thoughts, emotions, and behaviours (Bidjerano and Dai, 2007; and Delee, 2014).

2.3 Efficacy and Career Readiness

Efficacy is an important element for graduates because of its ability to influence a person's thinking style, motivation, and behaviour towards career (Bandura, 1993). Jasmi Abu Talib et al, (2016) in his study found that increasing career efficiency is a significant contributor to the graduate's ability to plan a career. They find it easier to engage with career activities such as skill development and other resources to manage career challenges (Chan et al, 2017). Low career efficacy causes graduates to be less able to make career decisions (Betz, 1992) and tend to feel less prepared for the career world (Bandura, 2006; Lent, Brown, and Hackett, 1994).

2.4 Personality and Efficacy

Personality can produce effective self-efficacy as a predictor of career behaviour such as gathering relevant information, setting goals, determining priorities and confidence in making

career choices (Brown and Cinamon, 2016; O'Sullivan, Strauser and Wong, 2012). Previous studies have found that there is a significant positive relationship between personality and self-efficacy in career search and career behaviour (Fort et al, 2015).

3.0 RESEARCH METHODOLOGY

This quantitative study involves a total of 311 final-year undergraduate students of Universiti Teknologi Malaysia as respondents through a proportionate stratified random sampling method. A total of three instruments were used in this study, namely the Career Readiness Instrument, the Big Five Inventory (BFI) to measure personality traits and the Career Self-Efficacy Sources Scale (CSESS) to measure career efficacy. The research data were analysed using SmartPLS which is a software for analysis that uses the Partial Least Square Structural Equation Modelling approach. Data were analysed in two stages, namely measurement evaluation and structural evaluation.

4.0 RESULTS

The analysis of the measurement level that produced the findings is as in Table 1. The findings show that all constructs namely, career readiness, personality and career efficacy had achieved reliability with a reading of composite reliability (CR) = >0.70. Convergent validity was shown through reading AVE= >0.50, while discriminant validity was shown through reading HTMT= <0.9. Loading readings on all indicators were also obtained.

Table 1: Reliability and validity values for the constructs of career readiness, personality, and career efficacy

| Construct | Internal Consistency Reliability | Convergent Validity | Discriminant Validity | | |
|---------------------|----------------------------------|---------------------|-----------------------|-------------------|--------------------|
| | CR (> 0.70) | AVE (> 0.50) | Cross Loading | Fornell Larcker's | HTMT |
| Career Readiness | 0.86 | 0.51 | 0.60-0.81 | 0.728 | HTMT <0.9, CI <1.0 |
| Agreeableness | 0.78 | 0.55 | 0.66-0.79 | 0.740 | |
| Conscientiousness | 0.83 | 0.54 | 0.67-0.83 | 0.737 | |
| Extraversion | 0.83 | 0.55 | 0.69-0.81 | 0.742 | |
| Emotional Stability | 0.82 | 0.60 | 0.65-0.83 | 0.773 | |
| Openness | 0.84 | 0.52 | 0.59-0.79 | 0.720 | |
| Efficacy | 0.82 | 0.54 | 0.67-0.81 | 0.796 | |

Next, the data were analysed in the second stage, which is a structural assessment, the results of which are shown in Table 2. The results of the analysis show Extraversion ($\beta = 0.191$, $t = 2.165$), Agreeableness ($\beta = 0.104$, $t = 2.165$), Openness ($\beta = 0.218$, $t = 3.745$) and efficiency ($\beta = 0.283$, $t = 4.521$) had a significant direct effect on career readiness at the 95% confidence

level. Two personality traits namely, Conscientiousness and Emotional Stability did not have a significant direct effect on career readiness.

Table 2: Summary of the findings of the relationship between personality, career readiness and career efficacy.

| Hypothesis | Relationship | β | t | p | Finding |
|------------------|---|---------|-------|-------|-----------|
| H _{a1} | Agreeableness -> Career Readiness | 0.104 | 2.165 | 0.040 | Supported |
| H _{a2} | Conscientiousness -> Career Readiness | 0.098 | 1.746 | 0.088 | Rejected |
| H _{a3} | Extraversion -> Career Readiness | 0.191 | 3.423 | 0.000 | Supported |
| H _{a4} | Emotional Stability -> Career Readiness | 0.048 | 1.070 | 0.259 | Rejected |
| H _{a5} | Openness -> Career Readiness | 0.218 | 3.745 | 0.000 | Supported |
| H _{a6} | Efficacy -> Career Readiness | 0.283 | 4.521 | 0.000 | Supported |
| H _{a7} | Agreeableness -> Efficacy | 0.127 | 2.929 | 0.004 | Supported |
| H _{a8} | Conscientiousness -> Efficacy | 0.159 | 2.966 | 0.002 | Supported |
| H _{a9} | Extraversion -> Efficacy | 0.299 | 6.181 | 0.000 | Supported |
| H _{a10} | Emotional Stability -> Efficacy | 0.143 | 2.964 | 0.003 | Supported |
| H _{a11} | Openness -> Efficacy | 0.265 | 4.253 | 0.000 | Supported |

$t > 1.96; p < 0.05$

The findings also show that all personality traits namely, Agreeableness ($\beta = 0.127$, $t = 2.929$), Conscientiousness ($\beta = 0.159$, $t = 2.966$), Extraversion ($\beta = 0.299$, $t = 6.181$), Emotional Stability ($\beta = 0.143$, $t = 2.964$) and Openness ($\beta = 0.265$, $t = 4.253$) had a significant direct effect on career efficacy.

Table 3: Values of Coefficient of Determination and Predictive Relevance

| | Coefficient of Determination | | Predictive Relevance | |
|------------------|------------------------------|----------|----------------------|----------|
| | R ² | Level | Q ² | Level |
| Career Readiness | 0.53 | Moderate | 0.26 | Moderate |
| Career Efficacy | 0.54 | Moderate | 0.32 | Moderate |

The Coefficient of Determination (R^2) and Predictive Relevance (Q^2) values were obtained to assess the expected accuracy and the relevance of constructs used in developing the career readiness model. Table 3 shows the R^2 value for the model developed in this study. The variance effect shown by career readiness was at a moderate level of 0.53. This value gives the interpretation that 53% of the change in career readiness was explained by career efficacy and three personality traits namely, Agreeableness, Extraversion and Openness. This means that 47% of the variance in graduates' career readiness was explained by other factors that were not the focus of this study. As for the career efficacy construct, the variance received from the five personality traits was 0.54, which was a moderate level. A total of

54% of the change in career efficacy was explained by Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness. Another 46% was explained by other factors that were not the focus of the study in this model.

In addition to identifying the determination coefficient (R^2) of a model, the evaluation of the actual effect shown by the independent construct on the dependent construct (f^2) was also done. This assessment describes the extent to which the strength of an independent construct contributes to the real effect and explains the dependent construct in shaping the predictive accuracy of a model.

Table 4: The actual impact of the independent construct on career readiness

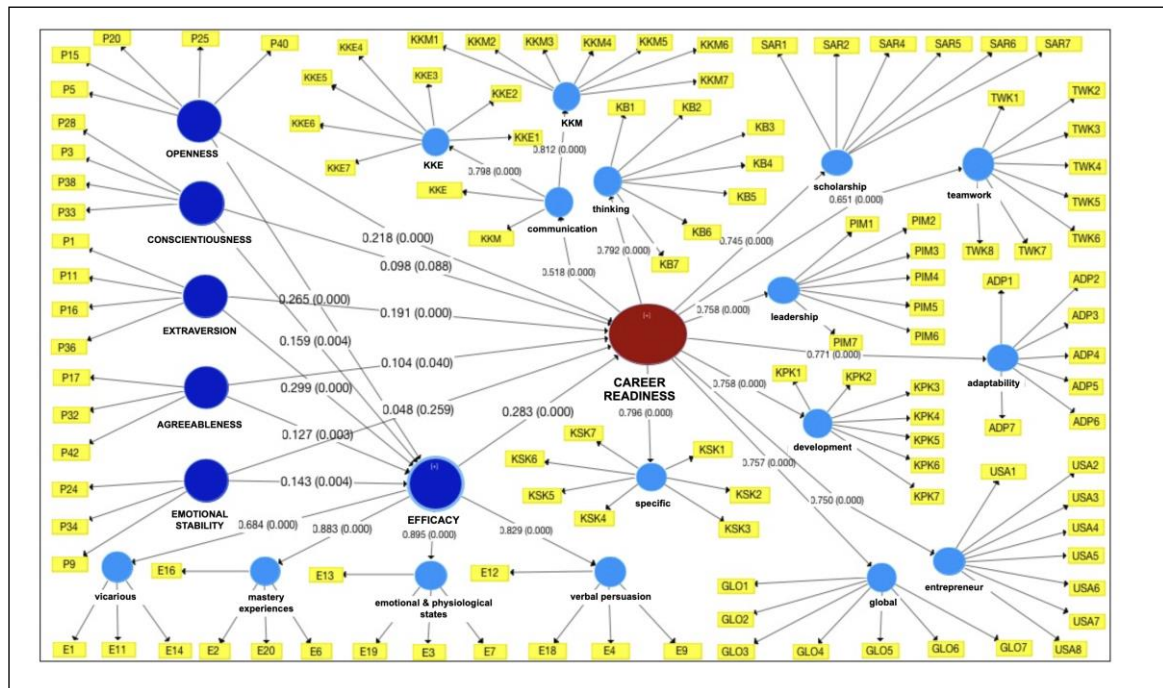
| | f^2 | |
|---------------------|------------------------------------|----------|
| | Actual Effects that IV shows on DV | |
| | Career Readiness | Efficacy |
| Efficacy | 0.078 | |
| Agreeableness | 0.016 | 0.025 |
| Conscientiousness | 0.011 | 0.030 |
| Extraversion | 0.040 | 0.111 |
| Emotional Stability | 0.004 | 0.036 |
| Openness | 0.063 | 0.103 |

0.02=small, 0.15=medium, 0.35=big (Cohen, 1988)

Table 4 shows the f^2 value for each independent construct on career readiness. The most effective f^2 value shown for career readiness was efficacy (0.078), followed by Openness (0.063), Extraversion (0.040), Agreeableness (0.016), Conscientiousness (0.011) and Emotional Stability (0.004). This means that the constructs of career efficacy, Openness, Extraversion and Agreeableness have a small effect in producing the R^2 value for career readiness, while Conscientiousness and Emotional Stability contribute a very small effect (almost none) in producing the R^2 value for career readiness based on the f^2 value noted (Cohen, 1988). For the career efficacy construct, the f^2 value was shown by the construct Extraversion (0.111), Openness (0.103), Emotional Stability (0.036), Conscientiousness (0.030) and Agreeableness (0.025). The effect shown by the five traits was small in

producing R^2 for career efficacy. At the final stage of the analysis, a career readiness model framework was produced based on the significance of the relationship between the constructs and the value of the Coefficient of Determination (R^2), Predictive Relevance (Q^2) and effect size (f^2).

Figure 1: Career readiness path model in PLS-SEM



Based on Figure 1, the final model produced has gone through the stages of measurement evaluation and structural evaluation. The model path produced has clearly shown the relationship between the constructs and the indicators involved for each construct.

5.0 DISCUSSION

The findings show that personality plays an important role in career readiness. Although previous studies did not specifically examine the influence of personality on career readiness, the findings obtained regarding personality on various career aspects support the findings of this study (Rogers, Creed, and Glendon, 2008; Brunello et al, 2011; Melvin and Lenz, 2014; Banasova, 2018; Leutner and Chamorro-Premuzic, 2018). Personality factors influence matters involving career decisions and career processes (Rogers et al, 2008), being an important component that needs to be considered in the process of developing a variety of skills (Schlotte, 2011) and known as a critical factor in making career decisions (Banasova, 2018). Personality is also a variable that needs to be considered to help graduates in career-related matters (Melvin and Lenz, 2014) in addition to being an important predictor of an individual's career potential (Leutner and Chamorro-Premuzic, 2018).

In addition to personality, career efficacy is also a source for graduates to be confident in their abilities to achieve career goals and produce career readiness that focuses on the mastery of various skills (Maietta, 2013). This is to ensure graduates to be more ambitious in career life, display more positive behaviour and visualize their career success in the future (Bandura, 1993). In developing graduate career efficiency, all personality traits play an important role. Although there are differences in terms of the variance value contributed by all traits, it can be concluded that personality traits are an important element that must be considered in the production of graduate career efficiency that exists from different sources.

6.0 CONCLUSION

The elements studied in this study are psychological constructs that have been proven to have an impact on more positive behavioural changes. The relationship that exists between these elements can not only help produce graduates who have self-confidence but can also contribute to the production of graduates who have career readiness to function as human capital better in the career market.

REFERENCE

1. Arnott, J., & D. Carroll. (2013). *The Report of the Graduate Outlook Survey: Employers' Perspectives on Graduate Recruitment*. Melbourne: Graduate Careers Australia Ltd.
2. Banasova, K. (2018) Emotional and personality difficulties with career decision making and metacognitions as predictors of the career emotional and personality difficulties with career decision making and metacognitions as predictors of the career decidedness. *EDULEARN18 Proceedings*. 2-4 Julai. Palma, Spain, (Vol. 1, 6536–6542).
3. Bandura, A. (1993) Self efficacy in academic development. *Educational Psychologist*, 28(2), 117–148. doi: 10.1207/s15326985ep2802_3.
4. Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (Vol. 5, pp. 307-337). Greenwich, CT: Information Age Publishing.
5. Betz, N. E. (1992). Career assessment: A review of critical issues. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (pp. 453–484). John Wiley & Sons.
6. Bidjerano, T. & Dai, D. Y. (2007) The relationship between the Big-Five Model of personality and self-regulated learning strategies. *Learning and Individual Differences*, 17(1), 69–81. doi: 10.1016/j.lindif.2007.02.001.
7. Brown, D. & Cinamon, R. G. (2016) Contribution of personality to self-efficacy and outcome expectations in selecting a high school major among adolescents with learning disabilities. *Career Development and Transition for Exceptional Individuals*, 39(4), 237–248. doi: 10.1177/2165143415587689.
8. Brunello, G., and Schlotter, M. (2011) Non cognitive skills and personality traits: labour market relevance and their development in education & training systems. IZA Discussion Paper No. 5743. Institute of Labor Economics (IZA).
9. Cavanagh, J., Burston, M., Southcombe, A. and Bartram, T. (2015), “Contributing to a graduate-centred understanding of work readiness: an exploratory study of Australian

- undergraduate students' perceptions of their employability", *The International Journal of Management Education*, Vol. 13 No. 3, pp. 278-288.
10. Chan, X. W., Kalliath, T., Brough, P., O'driscoll, M., Siu, O. L., & Timms, C. (2017) Self-efficacy and work engagement: Test of a chain model. *International Journal of Manpower*, 38(6), 819–834. doi: 10.1108/IJM-11-2015-0189.
 11. Cheong, K.C., Hill, C., Fernandez-Chung, R.M., & Leong, Y. (2016). Employing the 'unemployable': employer perceptions of Malaysian graduates. *Studies in Higher Education*, 41, 2253 - 2270.
 12. Coetzee, M. & Harry, N. (2014) Emotional intelligence as a predictor of employees career adaptability. *Journal of Vocational Behavior*. 84(1), 90–97. doi: 10.1016/j.jvb.2013.09.001.
 13. Delee A. Fromm (2014). *Advance Your Legal Career: Essential Skills for Success*. Butterworths (Canada) Limited.
 14. Dian Hikmah Mohd Ibrahim & Mohd Zaidi Mahyuddin (2016). Youth Unemployment in Malaysia: Developments and Policy Considerations. *Bank Negara Malaysia, Annual Report 2016*, 99-106.
 15. Doe, R. (2015) *Work Readiness among Graduate Students*. Tesis PhD. Louisiana State University.
 16. Foley, P. F. & Lytle, M. C. (2015) Social Cognitive Career Theory, the Theory of Work Adjustment, and Work Satisfaction of Retirement-Age Adults. *Journal of Career Development*, 42(3), 199–214. doi:10.1177/0894845314553270.
 17. Fort, I., Pacaud, C. & Gilles, P.-Y. (2015) Job search intention, theory of planned behavior, personality and job search experience. *International Journal for Educational and Vocational Guidance*, 15(1), 57–74. doi: 10.1007/s10775- 014-9281-3.
 18. Gysbers, N. C. (2013) Career-ready students : A goal of comprehensive school counseling programs. *The Career Development Quarterly*, 61(283–289). doi: 10.1002/J.2161.
 19. Hartman, R. O. & Betz, N. E. (2007) The five-factor model and career self-efficacy, *Journal of Career Assessment*, 15(2), 145–161.
 20. Jasmi Abu Talib, Mohamad, Z. & Wahab, N. A. (2016) Career self-efficacy and career maturity contributions on career planning abilities among youths. *Social Sciences (Pakistan)*, 11(22), 5482–5487. doi: 10.3923/sscience.2016.5482.5487.
 21. JobStreet (2013). *Employers Rank Soft Skills Above Academics*. Access on 10 November, 2017, daripada <https://www.jobstreet.com.my/career-resources/employers-rank-soft-skills-academics/>.
 22. Juhász, M. (2010) Influence of personality on teamwork behaviour and communication. *Periodica Polytechnica Social and Management Sciences*, 18(2), 63–77. doi: 10.3311/pp.so.2010-2.02.
 23. Khalim Zainal, Wan Zulkifli Wan Hassan, Jamsari Alias. (2012) Generic skill level of UKM students after pursuing the compulsory general studies courses, *Procedia-Social and Behavioral Sciences*, 59, 558–564.
 24. Kwok, D., Gujral, M. & Chan, J. (2011) Work readiness: A study of student intern 's self-perception and Supervisor Evaluation. *International Conference on Teaching & Learning in Higher Education*, National University of Singapore. 2011–2013.

25. Lei, Y. C. (2014) The Big Five Model of personality and career development. Texas A&M University.
26. Lent, R. W., Brown, S. D. & Hackett, G. (1994) Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79–122. doi: 10.1006/jvbe.1994.1027.
27. Lent, R. W., Hackett, G. & Brown, S. . (2000) Contextual Support and Barriers to Career Choise: A Social Cognitive Analysis,. *Journal of Conseling Psychology*, 47(1), 36–49. doi: 10.1037/0022-0167.47.1.36.
28. Leutner, F. & Chamorro-Premuzic, T. (2018) Stronger together : personality, intelligence and the assessment of career potential. *Journal of Intelligence*, 6(49). doi: 10.3390/jintelligence6040049.
29. Leutner, F. & Chamorro-Premuzic, T. (2018) Stronger together : personality, intelligence and the assessment of career potential. *Journal of Intelligence*, 6(49). doi: 10.3390/jintelligence6040049.
30. Lim, Y.-M., Lee, T.H., Yap, C.S. and Ling, C.C. (2016) Employability Skills, Personal Qualities, and Early Employment Problems of Entry-Level Auditors: Perspectives from Employers, Lecturers, Auditors, and Students. *Journal of Education for Business*, 91, 185-192.
<https://doi.org/10.1080/08832323.2016.1153998>
31. Luthans, F. , Avolio, B. J., Avey, J. B. & Norman, S. M. (2007) Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572. doi:10.1111/j.1744- 6570.2007.00083.x
32. Maietta, H. (2013) The four year experience: Career search self-efficacy of new graduates. *Online Journal for Workforce Education and Development*, 6(2).
33. Mansor Maznizam & Abdullah Mat Rashid (2016) Hubungan antara kesediaan kerjaya dan kematangan kerjaya pelajar institusi latihan kemahiran awam Malaysia. *Skills Malaysia Journal*, 2(1), 11–26.
34. Mayer, J. D., Salovey, P. & Caruso, D. R. (2008) Emotional intelligence: New ability or eclectic traits? *American Psychologist*, 63(6), 503–517. doi: 10.1037/0003-066X.63.6.503.
35. Melvin, B. R. & Lenz, J. G. (2014) Assessing career readiness factors and personality type : Implications for practice. *VISTAS Online*, (48).
36. Muhammad Hazrul Ismail. (2012). Kajian Mengenai Kebolehpasaran Siswazah di Malaysia: Tinjauan dari Perspektif Majikan. *Prosiding PERKEM VII*, Jilid 2, 906 – 913.
37. Näswall, K., Kuntz, J., and Malinen, S. (2015) *Employee Resilience Scale (EmpRes): Technical Report*. Resilient Organisations Research Report 2015/04. ISSN 1178-7279.
38. Nayan, S. & Asmaak Shafie, L. (2010) Employability Awareness among Malaysian undergraduates. *International Journal of Business and Management*, 5(8), 119–123. doi: 10.5539/ijbm.v5n8p119.
39. O’Sullivan, D., Strauser, David R. & Wong, A. W. K. (2012) Five-factor model of personality, work behavior self-efficacy, and length of prior employment for individuals with disabilities: An exploratory analysis. *Rehabilitation Counseling Bulletin*, 55(3), 156–165. doi: 10.1177/0034355212437046.

40. Rahmah Ismail, Ishak Yussof & Sieng, L. W. (2011) Employers' perceptions on graduates in Malaysian services sector. *International Business Management*, 5(3), 184–193. doi: 10.3923/ibm.2011.184.193.
41. Rogers-sharer, S. L. (2015) Internal attributes at mitigate perceived job insecurity : Improving employee satisfaction. Tesis PhD, Walden University.
42. Rogers, M. E., Creed, P. A., & Glendon, A. I. (2008) The role of personality in adolescent career planning and exploration: A social cognitive perspective. *Journal of Vocational Behavior*, 73(1), 132-142. doi: <http://dx.doi.org/10.1016/j.jvb.2008.02.002>.
43. Savickas, M. L. & Porfeli, E. J. (2011) Revision of the Career Maturity Inventory : The adaptability form. *Journal of Career Assessment*, 19(4), 355-374. doi: 10.1177/1069072711409342.
44. Sims, C. M. (2017) Do the Big-Five personality traits predict empathic listening and assertive communication? *International Journal of Listening*. 31(3), 163–188. doi: 10.1080/10904018.2016.1202770.
45. Thoresen, C. J., Bradley, J. C., Bliese, P. D., & Thoresen, J. D. (2004). The Big Five personality traits and individual job performance growth trajectories in maintenance and transitional job stages. *Journal of Applied Psychology*, 89(5), 835-853. <http://dx.doi.org/10.1037/0021-9010.89.5.835>.
46. Wang, Jiun-Hao; Chang, Chi-Cheng; Yao, Shu-Nung; Liang, Chaoyun. (2017) The contribution of self-efficacy to the relationship between personality traits and entrepreneurial intention. *Higher Education*. 72(2), 209–224. doi: 10.1007/s10734-015-9946-y.
47. Ward, V.G. & Dorothy I. Riddle (2012). Employment Readiness: Addressing Critical Soft Skills. Access on 1 July 2017 from http://www.employmentreadiness.info/sites/employmentreadiness.info/files/files/Articles/Addressing%20soft%20skills_2012.pdf.
48. Ward, V.G., Riddle, D.I. & Lloyd, D. (2004). Maximizing Employment Readiness. National Consultation on Career Development. (NATCON) papers 2004, Les actes de la CONAT, 2004.
49. Wille, B., Fruyt, F. De & Feys, M. (2010) Vocational interests and Big Five traits as predictors of job Instability. *Journal of Vocational Behavior*. 76(3), 547–558. doi: 10.1016/j.jvb.2010.01.007.
50. World Economic Forum. (2016) The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution.
51. Zaliza Hanapi, Mohd Safarin Nordin, & Ridzwan Che Rus. (2014). Unemployment Problem Among Graduates Of Technical Field: Competencies Of Graduates And Quality Of The Education. *Sains Humanika*, 2(2), 53-57.