

# **Integrative Career Readiness Model Using Psychological Construct**

**Norazwa Yeop Kamarudin<sup>1</sup> and Azlina Mohd Kosnin<sup>2</sup>**

<sup>1</sup>UTM Career Centre, Universiti Teknologi Malaysia

<sup>2</sup>School of Education, Faculty of Social Sciences and Humanities,

Universiti Teknologi Malaysia

81310 Johor Bahru, Johor, Malaysia.

Correspondence

**Norazwa Yeop Kamarudin**

**[norazwa@utm.my](mailto:norazwa@utm.my)**

## **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	$\beta$	$t$	$p$	Finding
H <sub>a1</sub>	Agreeableness -> Career Readiness	0.104	2.165	0.040	Supported
H <sub>a2</sub>	Conscientiousness -> Career Readiness	0.098	1.746	0.088	Rejected
H <sub>a3</sub>	Extraversion -> Career Readiness	0.191	3.423	0.000	Supported
H <sub>a4</sub>	Emotional Stability -> Career Readiness	0.048	1.070	0.259	Rejected
H <sub>a5</sub>	Openness -> Career Readiness	0.218	3.745	0.000	Supported
H <sub>a6</sub>	Efficacy -> Career Readiness	0.283	4.521	0.000	Supported
H <sub>a7</sub>	Agreeableness -> Efficacy	0.127	2.929	0.004	Supported
H <sub>a8</sub>	Conscientiousness -> Efficacy	0.159	2.966	0.002	Supported
H <sub>a9</sub>	Extraversion -> Efficacy	0.299	6.181	0.000	Supported
H <sub>a10</sub>	Emotional Stability -> Efficacy	0.143	2.964	0.003	Supported
H <sub>a11</sub>	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 <sup>2</sup>	Level	Q <sup>2</sup>	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

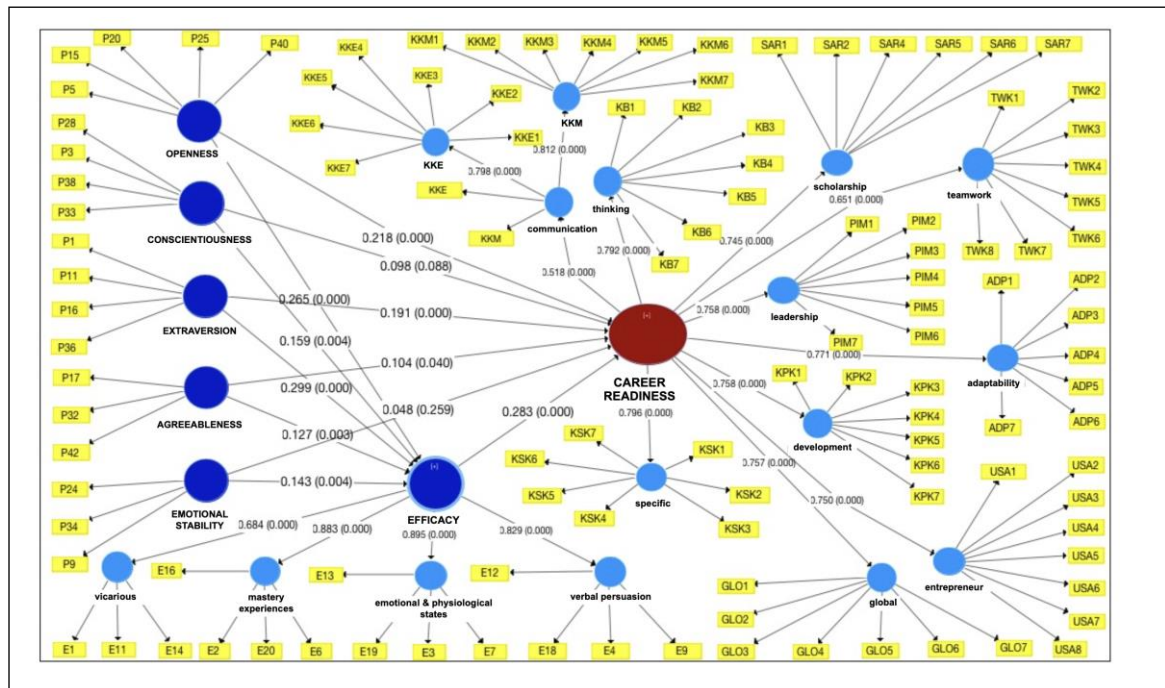
	$f^2$	
	Actual Effects that IV shows on DV	
	Career Readiness	Efficacy
Efficacy	0.078	
Agreeableness	0.016	0.025
Conscientiousness	0.011	0.030
Extraversion	0.040	0.111
Emotional Stability	0.004	0.036
Openness	0.063	0.103

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.

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