

Career Choices at A Public Higher Education Institution (IPTA): An Examination of The Social Cognitive Model of Career Self-Management

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Abstract

This study aimed to examine the impact of social support and personality traits (conscientiousness and neuroticism) on self-efficacy in career decision-making, outcome expectations, and the certainty of career choice among students in one public higher education institution (IPTA) located in Selangor. This quantitative study utilised survey research as the main method for data collection. A questionnaire which consisted six parts: Part A related to students' demographic; Part B, Career Decision Self-Efficacy Scale-Short Form (CDSE-SF); Part C, Career Outcome Expectations Scale; Part D, Multidimensional Scale of Perceived Social Support; Part E, Career Exploratory Plans or Intentions Questionnaire (CEPI); and Part F, NEO-FFI (NEO Five-Factor Inventory); was employed and distributed virtually to 377 IPTA students whom sampled through voluntary sampling. Based on the study's findings, personality traits, particularly conscientiousness, have significant impact and significant positive relationships with self-efficacy ($r=0.233$, $p=0.000$), outcome expectations ($r=0.268$; $p=0.000$), and career explorations goals ($r=0.916$, $p=0.000$; at $p<0.05$) - the important aspects of Career Self-Management (CSM) model. Contrarily, there was the absence of significance between social support with the previously mentioned vital aspects of CSM model. This study implied that students' beliefs and positive outcome expectations are the most important and significant predictors for their career exploration goals.

Keywords: Self-Efficacy, Personality Traits, Conscientiousness, Career Self-Management Model, CSM

Introduction

To find a suitable job right after graduating is a dream for every fresh graduate, as it would provide one with a long-term life contentment when s/he made a right decision about his or her career path. However, a person may face some obstacles in the process of making a career decision; which is deemed as the most crucial part in one's life. This is where a social cognitive model of career self-management (CSM) which was proposed by Lent and Brown (2013)

comes to play. Based on the CSM model framework, some factors like one's self-efficacy, his or her outcome expectations, personal aspirations as well as contextual supports and barriers, have a great impact on professional decision-making process. Few researches have proven this relationship; the researches were even extended to a greater degree. For example, college students' personal mastery and positive affect play vital roles in predicting their career decision (Lent et al., 2017). As for Azpilicueta et al (2023), they found that personality traits such as conscientiousness and neuroticism have significant roles in aiding someone in the process of career decision-making.

The study on the process of career decision-making would certainly benefit many stakeholders in education. For instance, it may come into assistance for educational institutions and policymakers for them to create effective career counselling programmes with the purposes of aiding students in making a well-informed professional decision. Plus, students would be able to recognise their competencies and harmonise their professional aspirations with personal principles and passions, in which subsequently enhance their job gratification and achievement. Furthermore, one would gain a rich insight by studying the process of career decision-making - it would help them to adjust to imminent professional prospects and hindrances, where the current instability of global economy affects the uncertainties of availability and security of jobs (Lent et al., 2019). Plus, inner troubles like anxiety, stress, and low self-efficacy can affect one from making an effective career decision-making where ultimately it would lead to unsatisfactory career choices (Pignault et al., 2023).

Problem Statement and Research Objectives

Even though social cognitive model of career self-management (CSM) was extensively applied in the variety of contexts, its applicability on Malaysian university students is still lacking in term of empirical evidence. As Malaysia is comprised of different and unique cultural, social, as well as economic factors, it is crucial to have a deep understanding in the processes of career decision-making of Malaysian students. This is particularly vital when the rate of unemployment among Malaysian fresh graduates was reported to be half of 50% in recent years Department of Statistics Malaysia (2020), which is very worrying. Thus, this revealed statistics result emphasised the importance of understanding and supporting the processes of career decision-making of Malaysian university students. Moreover, Earl and Bright (2007) highlighted the importance of effective career decision-making because it is able to affect positively on one's career path, job gratification, and the overall life quality. According to Lent & Hackett (1987), an individual with higher self-efficacy in career decision-making has the tendency to set realistic career goal, engage in effective job search behaviours, and ultimately achieve career contentment.

As aforementioned, students in Malaysia come from various background of cultures, society, and economics; especially in public higher education institutions (IPTAs). Students who are majorly coming from average-class backgrounds, often facing the inadequacy of financial resources and limited accessibility towards the extensive career guidance resources. This kind of financial pressures is one of the factors that causes the students to just grab any immediate job opportunities rather than planning for long-term careers. Besides, families' and communities' expectations of the fresh graduates may be higher; which means they expect those graduated students to hunt for decent and reputable jobs that may be not aligned with the students' personal interests and aptitudes (Koçak et al., 2021). Moreover, psychological

factors such as higher level of anxiety and lower self-confidence are often lead to the difficulties of one's career decision-making (Shu et al., 2023). These challenges are sufficient to show that there is an urgency to apply the social cognitive model of CSM in order to foster better and deep understanding of career decision-making processes among university students. Therefore, the ultimate aims of this study are to examine the factors that influence self-efficacy in career decision-making, outcome expectations, and the certainty of career choice among university students. Following are the research objectives of this study:

1. To investigate the impact of social support on the predictive utility of the CSM model among students at one IPTA in Malaysia (null hypothesis 1 [H_{01}] and H_{02} - would be stated in later section).
2. To investigate the impact of personality trait on the predictive utility of the CSM model among IPTA students (H_{03} and H_{04})
3. To examine the relationship between social support, personal traits, self-efficacy and expectations of outcome in engaging career exploration among IPTA students (H_{05}).

To specify, the social support in career decision-making context encompasses the supports of emotional, informational, and practical which are provided by families, friends, mentors, and significant others. In short, a strong and dependable social support networks able to the lead of higher self-efficacy in career decision-making as well as better and positive outcome expectations.

Literature Review

Theoretical Framework of Social Cognitive Model of Career Self-Management (CSM)

In this comprehensive theoretical framework which was proposed and developed by Lent and Brown (2013), Bandura's theory of social cognitive becomes the pivotal base. Bandura's theory's emphasisation on the dynamic interaction between one's personal elements (which include cognitive, affective, and bodily events), behavioral patterns, and environmental influences; has an instrumental role in comprehending the psychological constructs (such as self-efficacy beliefs, outcome expectations, and personality traits) which are elemental to the CSM model. The aforementioned dynamic interaction is known as triadic reciprocal causation which refers to the bidirectional-manner interaction and mutual influence between the three variables (Revilla, 2014). To put it simply, within the realm of career decision-making, one's personal views and attitude would directly impact his/her career behaviour; and in turn, this behaviour would influence and is influenced by the surrounding environments such as educational and work environments.

Self-efficacy plays an instrumental role in both social cognitive theory and the CSM model, as it is related to one's self-confidence in his/her amplitudes to successfully complete assignments and achieve the setting objectives. For one to have a strong self-efficacy belief in a career setting is a vital matter as the belief would determine the level of his/her involvement in career exploration and the capability to stay strong as well as committed when facing unpredictable challenges. This is supported by a study conducted by Sandra and Mularsih (2021) who empirically found that there is significance between self-efficacy and career decision-making. Lent et al (2021) also reported about the positive correlation between high self-efficacy, proactive career planning, and the capability to defeat the upcoming obstacles. Mastery experiences (such as successful performance and

achievements), vicarious learning, social supports, and physiological as well as emotional conditions, are the important sources to the positive self-efficacy (Robin, 2004) that could affect one's process of career decision-making.

Aside of self-efficacy beliefs, outcome expectations and personality traits are the other earlier mentioned psychological constructs in the model that affect the processes of making a career decision. One's positivity on his or her outcome expectations - in which may manifest in form of concrete benefits like monetary rewards and personal satisfaction - would enable him or her to actively searching for employment opportunities and stay committed to reach his/her professional goals. This is reversely aligned with what Viola et al (2017) has reported: Low expectations on the future outcome able to retard one's aspiration from pursuing his or her particular career path. Next, personality traits such as conscientiousness and neuroticism have great influences on the processes of career decision-making. Referring to Martincin and Stead (2014), people with high conscientiousness are usually have more structured approach to career planning and decision-making processes. On the other hand, individuals with extreme neuroticism affect their confidence negatively that disturb their career planning and decision making processes in which eventually lead to heightened anxieties about their professional life (Kelly & Shin, 2008). Following is Figure 1 that theoretically explained the relationship between self-efficacy beliefs, outcome expectations, and personality factors that may impact the processes of career decision-making:

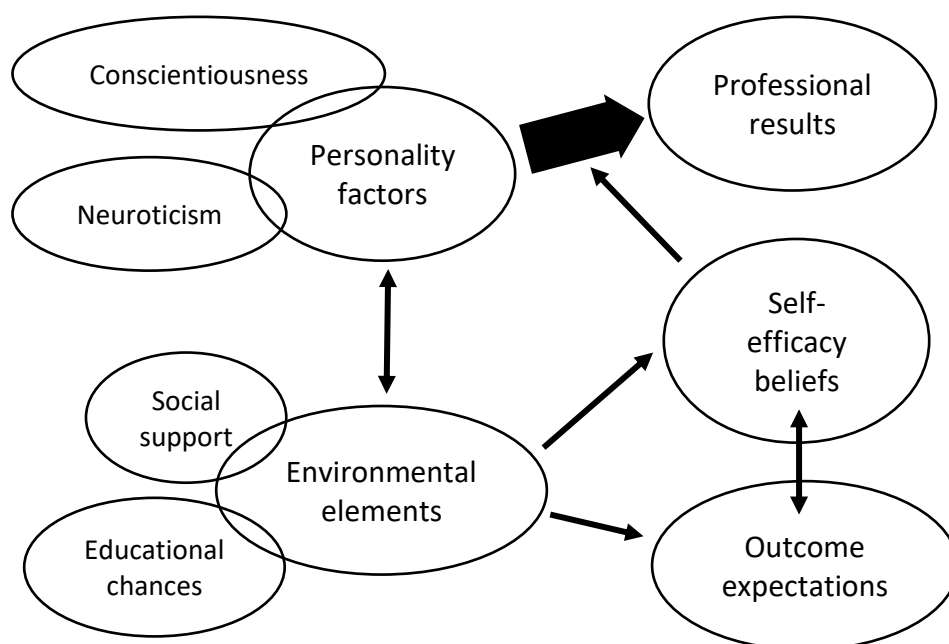


Figure 1. The interplay among self-efficacy beliefs, outcome expectations, and personality attributes.

Based on the figure, self-efficacy beliefs act as mediator in the bridge of personality factors and professional results. This means one's conscientiousness would increase his/her self-efficacy that eventually lead to the effective career decision-making (Zulkifli et al., 2021). Furthermore, self-efficacy beliefs and outcome expectations have mutual influences, where self-efficacy is positively correlated with outcomes expectations (Resnick, 2002).

Plus, the interaction between personality factors and environmental elements helps in shaping career behaviours (Koçak et al., 2021). Additionally, social support such as supportive parents able to enhance one's self-efficacy beliefs and outcome expectations; hence, enhancing one's career decision making processes (Katen et al., 2016). Simply put, understanding CSM model brings lots of benefits to related people. Lent et al (2016) stated that career counselling programs that assimilate mastery experiences and social supports

able to improve students' self-confidence in making career plan and decision. Moreover, Wendling and Sagas (2020) emphasised that the enhancement of self-efficacy and having decisive outcome expectations may lead to a sustainable career engagement and satisfaction.

Related Theories to Career Self-Management (CSM) Model

Apart from self-efficacy beliefs, outcome expectations, and positive personality trait namely conscientiousness, that contribute to the prediction of an individual's exploratory goals, Julian Rotter's locus of control theory also plays an instrumental role in contributing to the effectiveness of CSM model. The theory consists of two types of loci of control which are internal and external; where internal locus pushes someone to actively seek for better career management behaviours, as s/he believes that that effort would produce a positive outcome. This is aligned with strong beliefs of self-efficacy and positive outcome expectations in which the crucial elements in the effectiveness of CSM (Kirdök & Harman, 2018; Akpochafo, 2017). As for individuals with external locus of control, most of them have the faith that external factors such as luck or fate contribute to their experiences.

In addition, John Holland's theory of six personality types (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional - RIASEC) postulates that the choices of career of an individual is an expression of his or her personality in order to achieve greater job satisfaction and career stability. The complementary of this theory to CSM model that emphasises the role of personality traits in career decision-making processes make it relevant to be referred to in this study. For example, a conscientious individual tends to search for structured and goal-oriented career environments because of the environments' influences on their exploration of career and decision making process (Guan et al., 2015; Shin & Kelly, 2015). Conscientiousness is one of Big Five personality traits.

Additionally, a study conducted by Kim and Jeong (2018) found that social support (that may come from family, friends, or mentors) has a significant influence on type of career decision and attitude of college students majoring in sports towards their career decision-making. Lent et al. (2016) also has conducted a study related to social support, where the result of the study showed that people with strong social support networks are more confident to make professional decisions and have positive outcome expectations from their choices of career. Furthermore, Jo and Yang (2023) also reported the same result of their study in which physical education's students with positive social support help them in making career decisions and improve their attitudes towards the process of career decision-making. Last but not least, a research conducted by Zhou et al. (2024) suggested that social support has a dual impact on making professional decisions: (1) social support has a direct effect on individuals' self-confidence, and (2) social support boosts individuals' psychological resources that lead to the decreasing of challenges faced during the processes of career decision-making.

Conceptual Framework

This study anticipates that variables such as self-efficacy, expectations of the outcome, access to social support, and conscientiousness have significant roles in predicting career exploration action goals which are consistent with what Lent and Brown (2013) has outlined about the predictions of social cognitive model of career self-management (CSM). The following Figure 2 visualises the conceptual framework of this study:

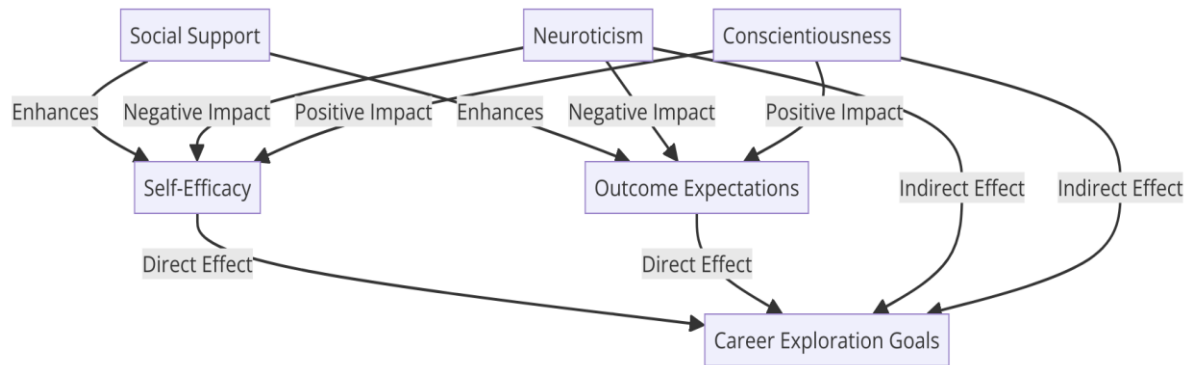


Figure 2. Conceptual framework of the variables interaction.

Referring to the above figure, it was postulated that both self-efficacy and outcome expectations have direct effects on career exploration goals. They are both may be enhanced by positive and strong social support networks as well as high level of conscientiousness; and they may also be negatively impacted by neuroticism which is characterised by higher levels of anxiety and instability of emotions. Simply put, this conceptual framework put together the essential elements of the CSM model in order to illuminate how various circumstances affect the objectives of career exploration. Importantly, this framework provides aids for the study’s analysis of the factors that may influence the career exploration action goals by offering a systematic approach to analyse the intricate relationship between the concerned variables namely self-efficacy, outcome expectations, social support, and personality traits in the process of career decision-making.

Methodology

Research Design

This study utilised a quantitative approach through the use of questionnaire survey as the main method for the collection of the intended data. A psychological component linked to the job exploration and decision-making processes among individuals who were currently studying for their tertiary education at one public higher education institution (IPTA) in Selangor, Malaysia.

Population and Sampling

The population number of the local students at the chosen public higher education institution (IPTA) located in Selangor was identified, which was 21,769. Thus, in order to determine the sample size, the Cochran’s Formula (1977) was used:

$$n = \frac{n_0}{1 + \frac{n_0}{N}} \quad \text{where,} \quad n_0 = \frac{Z^2pq}{e^2}$$

Following are the description of each symbol denoted:

- N = size of research’s population,
- The z-value is found in Z table,
- p is the estimated proportion of population that has the attribute in question,
- q is 1 - p, and
- e is the error margin (precision level).

In this study, it was estimated that $p=0.5$, $q=0.5$. For z-value, a 95% confidence ($e=0.05$) was decided. A 95% confidence level gives the researcher a z-value of 1.96. Hence,

$$n_0 = \frac{1.96^2(0.5)(0.5)}{0.05^2}$$

$$= 384.16 \approx 384$$

Second formula:

$$n = \frac{384}{1 + \frac{384}{21769}}$$

$$n = \frac{384}{1.01765}$$

$$n = 377.36 \approx 377$$

Hence, a total number of 377 students from this IPTA were recruited for this study based on specific inclusion and exclusion criteria:

- must be Malaysian citizens,
- presently enrolled at the IPTA, and
- ages between 18 to 35 years old.

Researcher has employed a voluntary sampling (a type of non-probability sampling) to select the final sample from the target population (Muraira, 2015).

Research Instrument

As has been mentioned before, a questionnaire was used as the instrument for this study. Overall, the instrument was comprised of six parts for the data collection of students who have completed their tertiary studies at one public higher education institution (IPTA) in Selangor. They were:

1. **Part A: Demographic.** This section included the inquiries on students' gender, age, race, nationality, the highest level of education, and faculty of studies.
2. **Part B: Career Decision Self-Efficacy Scale-Short Form (CDSE-SF)** which was used to evaluate students' self-efficacy and consisted of 20 items that related to the students' reported abilities in self-assessment, acquirement of occupational knowledge, goals selection, future preparation, and overcoming problems. Each item was based on 10-point Likert scale, ranging from 'Not At All Confident' (1) to 'Totally Confident' (10). The scores were computed by adding up the scoring of each item and then dividing by the total number of items.
3. **Part C: Career Outcome Expectations Scale** which was created by Betz and Voyten (1997), was adopted and employed by researcher in this study. The scale was comprised of 15 items and possessed elements with favourable outcomes which were linked to students'

involvement in career exploration activities. It was built of a 5-point Likert scale ranging from 'Very Low Probability' (1) to 'Very High Probability' (5).

- 4. Part D: Multidimensional Scale of Perceived Social Support.** This scale which was designed to assess the processes of career decision-making among college students majoring in physical education (Canty-Mitchell & Zimet, 2000) was adopted by the researcher and utilised in this study. It was used to measure students' perception of social support they received from their networks which encompassed three distinct factors: Familial support, support from friends, and from significant others, giving the total number of 12 items. The scoring was based on a 7-point Likert scale that ranges from 'Very Strongly Disagree' (1) to 'Very Strongly Agree' (7).
- 5. Part E: Career Exploratory Plans or Intentions Questionnaire (CEPI).** This scale was comprised of five questions, where students were asked to respond using a 5-point Likert scale that ranges from 'Strongly Disagree' (1) to 'Strongly Agree' (5).
- 6. Part F: NEO-FFI (NEO Five-Factor Inventory).** This questionnaire consisted of 12 items which was used to measure two psychological dimensions namely conscientiousness and neuroticism by asking the students to indicate their degree of concurrence with each item using a 5-point Likert scale. The scoring range was from 'Strongly Disagree' (1) to 'Strongly Agree' (5). Additionally, each attribute was evaluated using a set of six questions.

Data Collection Method

Researcher has utilised his open social media platforms, which were Facebook and Instagram pages, to post a Google Form link that contained the previously described questionnaires. Before the interested parties were asked to answer those questionnaires online, they were first required to check the "I agree" box in order to obtain their confirmation on their agreement to participate in the research. Additionally, the registrants were invited to share the link with their friends or acquaintances who can participate in this study. Moreover, the questions and answers were not lasted more than 30 minutes.

Findings

Based on Table 1, the respondents are mostly females, with the total number of 207, which comprised of 52.5% of the total sample. The rest 170 are males which constituted to 43.0%. The distribution highlights a modest gender imbalance that favours female within the sample. Next, the table shows the age distribution with the largest group falls within 23-26 years old class which comprises 189 respondents, or 40.6% of the total sample. It is then followed by 18-22 years old group that includes 116 respondents which makes up 30.8% of the total sample; 27-30 years old group which is comprised of 56 respondents and making up 14.9% of the sample. Both 31-35 and 36 years old and above groups have an equal representation of 26 respondents each, constituting 6.9% of the total sample, respectively. This indicates that the respondents of this study is mostly made up of younger adults, with the 23-26 years old category being the most represented. Additionally, most of the respondents are comprised of Malays with 189 students or 50.1% of the total sample; which is followed by 143 Chinese that makes up 37.9% of sample, and 39 Indians or 10.3% of the total sample. The "Other" category which represents respondents or students from other racial backgrounds, is the smallest group with only 6 of them or 1.5% participated in this study.

Table 1 presents the demographic data of students participated in this study. They were represented by frequencies and percentages:

Table 1

Students' demographic according to genders, ages, and races

Demographic Variables	<i>f</i>	%
Genders		
Male	170	43.0
Female	207	52.5
Ages		
18-22	116	30.8
23-26	153	40.6
27-30	56	14.9
31-35	26	6.9
36 years old and above	26	6.9
Races		
Malay	189	50.1
Chinese	143	37.9
Indian	39	10.3
Other	6	1.5

Table 2 below shows a varied representation of respondents' distribution across faculty in an IPTA in Selangor. Agricultural Science & Forestry is the largest faculty group which is comprised of 53 sample, accounting for 13.4% of the total sample. It is then closely followed by both Forestry & Environment and Modern Languages & Communication faculties, which consisted of 47 respondents or 11.9% of the sample. The rest are made up of faculty groups of Humanities, Management & Science, Agriculture, and Educational Studies; each with 45 (11.4%), 42 (10.6%), and 42 (10.6%) respondents, respectively.

Table 2

Respondents' distribution according to their faculty of studies

Demographic Variable	<i>f</i>	%	Demographic Variable	<i>f</i>	%
Faculty of Study			Faculty of Study		
Agricultural Science & Forestry	53	13.4	Biotechnology & Biomolecular Sciences	32	8.1
Humanities, Management & Science	45	11.4	Forestry & Environment	47	11.9
Agriculture	42	10.6	Modern Languages & Communication	22	5.6
Computer Science & Information Technology	29	7.3	Medicine & Health Science	47	11.9
Educational Studies	42	10.6	Veterinary Medicine	36	9.1

The following Table 3 shows the descriptive statistics of the distribution of key study variables that include self-efficacy, outcome expectation, social support, career exploration goals, neuroticism, and conscientiousness. Based on the table, the self-efficacy of the respondents of this study which were the students of one public higher education institution (IPTA) in Selangor; in which evaluated through Career Decision Self-Efficacy Scale-Short Form (CDSE-SF) have scores ranging from 3.65 to 9.15, with a mean score (\bar{x}) of 5.75 and a standard deviation (s) of 0.83. This result indicates an expansive range of levels of self-efficacy among the students; some of them exhibited higher levels of self-confidence in their abilities of making professional decision, whilst the others have low levels of confidence. Next, the range scores for outcome expectation is between 33 to 75, with $\bar{x}=47.03$ and $s=7.50$. It can be inferred that most of the students from the sample have moderate expectations in regard to the outcome of their career decisions, with the relatively high mean represents students with positive anticipation about the outcomes related to their career decisions. As for social support, its range score is spanning between 46 and 70, with $\bar{x}=57.75$ and $s=5.34$. This range of scores suggests that the respondents of the study perceived the level of social support they received from their networks in terms of emotions, information, or practical assistance, were generally moderate to high.

Furthermore, Table 3 also presents the score range for career exploration goals, which is ranging from 8 to 23, with $\bar{x}=15.21$ and $s=3.17$. This great variation indicates that some students were actively seeking out career information and opportunities, whilst the others' engagement were less. Next, the table also presents the descriptive statistics on personality traits which are neuroticism and conscientiousness. The scores range for neuroticism is ranging from 9 to 26, with $\bar{x}=18.18$ and $s=3.40$. This varied distribution indicates that some students have higher levels of anxiety and emotional instability, while the others exhibited lower levels of these negative traits. Additionally, the conscientiousness' scores range is spanning between 9 to 28, with $\bar{x}=18.31$ and $s=3.55$. This variation in distribution represents some students possessed high levels of diligence, organisation, and responsibilities; whilst the others have lower levels of these positive traits.

Table 3

Descriptive statistics of distribution of key study variables

Key Study Variables	Minimum	Maximum	Sum	Mean (\bar{x})	Std. Deviation (s)
Self-Efficacy	3.65	9.15	2168.45	5.7519	0.83100
Outcome Expectation	33.00	75.00	17731.00	47.0318	7.50312
Social Support	46.00	70.00	2177.00	57.7507	5.34167
Exploratory Goals	8.00	23.00	5737.00	15.2175	3.16907
Neuroticism	9.00	26.00	6856.00	18.1857	3.40096
Conscientiousness	9.00	28.00	6904.00	18.3130	3.55319

Next, Table 4 presents the inferential analysis of the involved variables in order to answer the research questions of each research objectives as have been stated before. Following are the null hypotheses formulated in this study:

H_{01} : There is no relationship between social support and self-efficacy and outcome expectation among students at an IPTA in Selangor.

H₀₂: There is no significant impact of social support on the predictive career goals exploratory among students at this IPTA.

H₀₃: There is no relationship between personality traits and self-efficacy and outcome expectation among students at the IPTA.

H₀₄: There is no significant impact of personality traits on the predictive career goals exploratory among students at this IPTA.

H₀₅: There is no relationship between social support, personality traits, self-efficacy, and outcome expectations in engaging the career exploration goals among students at the chosen IPTA.

A Pearson Correlation analysis was used to analyse these relationships:

Table 4

Inferential analysis of the involved variables

		Self-Efficacy	Outcome Expectation	Social Support	Exploratory Goals	Neuroticism	Conscientiousness
Self-Efficacy	Pearson, r	1	.437**	.028	.04**	.088	.233
	Sig. (2-tailed), p		.000	.584	.000	.088	.000
Outcome Expectation	Pearson, r	.437*	1	-.002	.232**	.190**	.268**
	Sig. (2-tailed), p	.000		.971	.000	.000	.000
Social Support	Pearson, r	.028	-.002	1	.026	-.079	-.035
	Sig. (2-tailed), p	.584	.971		.615	.128	.504
Exploratory Goals	Pearson, r	.204*	.232**	.026	1	.234**	.916**
	Sig. (2-tailed), p	.000	.000	.615		.000	.000
Neuroticism	Pearson, r	.088	.190**	-.079	.234**	1	.196**
	Sig. (2-tailed), p	.088	.000	.128	.000		.000
Conscientiousness	Pearson, r	.233*	.268**	-.035	.916**	.196**	1
	Sig. (2-tailed), p	.000	.000	.504	.000	.000	

**Correlation is significant at the 0.01 level (2-tailed).

Based on the above Table 4, social support is not significantly related and impacted the self-efficacy ($r=0.028$, $p=0.584$), outcome expectations ($r=-0.002$, $p=0.971$), or career exploratory goals ($r=0.026$, $p=0.615$), among students at the IPTA, which indicate that social support; despite its significance in many other contexts; may not play a direct role in influencing these variables. This suggests that the quantity of social support from networks perceived by these students does not directly influence their self-confidence in making career decisions. Furthermore, it highlights that the engagement in career exploration activities, like researching potential professional path or participating in internships, is not driven by social support. Therefore, the null hypotheses number 1 (H_{01}) and 2 (H_{02}) which were fall under research objective and question number 1, were accepted.

Next, null hypotheses 3 (H_{03}) stated that there is no significant relationship between personality traits - neuroticism and conscientiousness - with self-efficacy and outcome expectation among the IPTA students. Based on the above table, it can be seen that neuroticism has no significant relationship with variable self-efficacy ($r=0.088$, $p=0.088$), yet it significantly related and positively correlated with the outcome expectations ($r=0.190$, $p=0.000$; at $p<0.05$). Additionally, conscientiousness significantly related and positively correlated with both variables self-efficacy ($r=0.233$, $p=0.000$; at $p<0.05$) and outcome expectations ($r=0.268$, $p=0.000$; at $p<0.05$). In addition, null hypothesis 4 (H_{04}) stated that these personality traits are not significantly impacted on career exploratory goals among this one IPTA students. However, based on Table 4, it can be seen that both personality traits significantly impacted and positively correlated to professional exploration goals ($r=0.234$, $p=0.000$ and $r=0.16$, $p=0.000$, at $p<0.05$). These relationships and correlations suggest that personality traits have substantial effects on self-efficacy (except neuroticism), outcome expectations, and career exploration aspirations among students in this IPTA.

The last hypothesis, H_{05} , which falls under research objective and question 1, stated there is no significant relationship between social support, personality traits, self-efficacy, and outcome expectations in engaging the professional career exploration goals among students at this one IPTA in Selangor. Based on Table 4, it is shown that social support is not statistically significant with career exploration goals ($r=0.026$, $p=0.615$, at $p<0.05$) which indicates that social support from networks does not have a significant relationship with the professional exploration goals among the students. As for the other three variables namely personality traits (both neuroticism and conscientiousness; $r=0.0234$, $p=0.000$ and $r=0.916$, $p=0.000$, at $p<0.05$), self-efficacy ($r=0.204$, $p=0.000$, at $p<0.05$), and outcome expectations ($r=0.232$, $p=0.000$, at $p<0.05$), all of them have significant relation and positive correlation with the pursuit of career exploration goals. These findings implicate that these aspects, except for social support, play vital roles in influencing career exploration as measured by the career self-management (CSM) model in this study.

In summary, it was revealed that social support did not have significant impact on career decision-making self-efficacy, outcome expectations, or career exploration goals among the students at this IPTA located in Selangor. In converse, personality traits which were conscientiousness and neuroticism were found to have significant positive relationships with these career decision-making variables. Conscientiousness was specifically having the strongest impact compared to neuroticism on the career exploration goals. Moreover, the inferential analysis by Pearson Correlation also revealed that both self-efficacy and positive

outcome expectations were significant predictors of professional exploration goals, headlining their crucial roles in the process of making career decisions. As for variable social support, despite its anticipated role in influencing the process of career decision-making, it was found that it does not have significant role in the CSM model. In short, these findings underline the needs for career counselling programs to put a focal point on enhancing students' self-efficacy and optimise their personality strengths to support effective career decision-making.

Discussion and Implications

Results Discussion

Based on the presented result analyses in the previous section, it was revealed that social support from networks like families, friends, and/or significant others were not significantly related to the career decision-making self-efficacy, outcome expectations, or career exploration goals among the students in one public higher education institution (IPTA) located in Selangor. This implied that social support has no direct influence on the students' confidence in making career decisions, their expectations of career outcomes, or their engagement in career exploration activities. In contrast to the finding in previous research conducted by Kline et al (2021), it was emphasised that social support has a moderate and positive relationship with the career exploration. Therefore, it is inferred that the difference in these findings may be attributed to cultural or contextual factors specific to these IPTA students. It is possible that these students might prioritise their intrinsic motivation over external social support when they are making career decisions. For example, the constraints in financial may demotivate them from pursuing a certain career path which eventually lead to the disengagement from career exploration.

Furthermore, peers giving negative feedbacks in regard to the students' career choices may discourage them from further exploration. Thus, it can be inferred that the non-significant relationship between social support and career exploration goals may underline the greater significance of the students' resilience and self-motivation in this specific context. In addition, based on the students' demographic, most of the participants in this study are young adults (23-26 years old) who may not yet able to fully appreciate or search for social support in their processes of career decision-making.

Next, personality traits - conscientiousness and neuroticism - were revealed to have significant impact on the constructs of the career self-management (CSM) model. Based on the result in the previous section, it was shown that conscientiousness particularly showed a strong positive relationship with self-efficacy, outcome expectations, and career exploration goals. This means that the diligent, organised, and responsible students would have more self-confidence in their abilities to make career decisions, anticipate positive outcomes from their choices of professional career, and actively engaged in exploring career options. These findings aligned with wider literature that suggest individuals with high sense of conscientiousness are more goal-oriented and systematic in their career development approach (Weiss & Böhnisch, 2024). Additionally, neuroticism also manifested positive relationships with the outcome expectations and career exploration goals. Yet, it does not have significant impact on self-efficacy. This result implicated that students with high levels of neuroticism may engage in career exploration as their escape mechanism to alleviate their

uncertainty about the unseen future. This finding is different from what Lee et al (2021) have found, where neuroticism have no correlation to the career exploration.

The results of this study also revealed that self-efficacy and positive outcome expectations are two of the significant predictors of career exploration goals. According to the result of this study, the IPTA students who have higher self-confidence in their ability to make informed career decision and expect positive outcomes from their efforts are more tend to explore variety of career paths actively. This implies that self-efficacy beliefs and positive outcome expectations play instrumental roles in motivation students' career exploration behaviours. Moreover, personality traits, especially conscientiousness which can be characterised by diligence and organisational skills, exhibited a particularly strong influence on students' career exploration goals. On the other hand, social support does not show significant relationship with career exploration goals, in which implicitly suggests that students' traits and beliefs are more influential in driving career exploration behaviours. To reiterate, the findings presented in this study emphasised the importance of career counselling programs that focus on enhancing students' self-efficacy and optimising their personality strengths; ultimately, promoting the students' engagement in exploring career options actively.

Implications of the Study

Several important implications for career counselling and educational practices at this IPTA and other similar institutions have emerged from the findings of this study. The first important and significant implication is the necessity of the involved education stakeholder to focus on students' traits. For instance, career counselling programs should put an emphasisation on the enhancement of students' self-efficacies and optimisation of the strength of their conscientiousness in order to support an effective career decision-making. This is because counsellors would be able to help the students to develop their self-confidence and organisational skills which are needed to navigate their professional career paths once they have recognised and nurtured these traits. Additionally, tailored supports and assistance should be provided to point out the specific needs of students who have high levels of neuroticism. This is because their extreme anxiety and emotional instability might obstruct them from making effective career decisions. For example, a workshop that stresses on mindfulness and stress reduction, along with a one-on-one counselling sessions, may help these neurotic students to efficiently handle their anxiety and make more informed career choices.

In addition, this study also implies the necessity to rethink the role of social support from available networks in career counselling. It is generally known that social support is generally considered beneficial even though the findings of this study showed the inverse. Thus, career counselling should integrate strategies that address personal motivation as well as intrinsic interests. When a counsellor put a focal point on what have driven students internally, the counsellor can better support those students for them to make and decide the informed and satisfying career choices; even without the presence of strong social support networks. Moreover, this approach would indirectly recognises the instrumental roles of self-motivation and intrinsic interests in forming students' career decisions and encourage them to seek out and pursue careers which are aligned with their passions and strengths.

Last but not least, the results of this study also underline the significance of providing a supportive environment that helps in fostering students' self-efficacy. For example, by providing interventions such as opportunities for career-related experiences such as internships, job shadowing and networking events, they may help students to gain practical skills and reinforce their beliefs in their own abilities and capacities. Plus, positive reinforcements and feedbacks from counsellors as well as mentors may boost the self-efficacy beliefs of the students and eventually encourage them to proactively plan their career paths.

Suggestion for Future Studies

It is suggested for future studies to expand the area of research that covers several public higher education institutions (IPTAs) as this study's focus was only on one IPTA located in Selangor, Malaysia, with one key recommendation is to include larger and more diverse samples. By expanding the study that involve a broader range of students from different universities and background may enhance the generalisability of the findings. Moreover, it is also suggested for the future researchers in this research context to include students from private universities as well - even international universities, and also from different regions within Malaysia, as they may provide comparative insights and underline any cultural or institutional differences in career decision-making processes.

In addition, to incorporate qualitative approaches such as interviews and focus groups into the study researches can also provide an invaluable insight, as they delve deeper into the reasons behind every significance and non-significance of variables on career decision-making. For example, by interviewing respondents, researchers can uncover personal stories and detailed accounts of students' perceptions on social support and how they utilise it, while focus groups can provide richer discussions that underscore common themes and shared experiences among peers.

Conclusion

In summary, students' personality traits, especially conscientiousness in one public higher education institution (IPTA) located in Selangor, are significantly impact and have significant positive relationships with self-efficacy, outcome expectations, and career exploration goals. They inclined to have greater confidence in their career decision-making abilities (self-efficacy), more positive results expectations and were more actively engaged in the exploration of career options. Moreover, self-efficacy and outcome expectations were revealed to become significant predictors of career exploration goals which underline the vital role of self-beliefs and the anticipation of good outcomes in motivating students to involve themselves actively in regard to career exploration. Hence, it is implied that an individual's traits and beliefs play a very pivotal role in influencing their processes of career decision-making. This emphasised the importance of the focus on enhancing students' self-efficacy and improving their personality strengths through career counselling and educational practices.

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