

# Psychometric Properties of The Career Decision Self-Efficacy Scale-Short Form (CDESES-SF) In A Sample Of Malaysia University Students

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*Dihantar: 1<sup>st</sup> December 2024 / Diterima:  
1<sup>st</sup> December 2024 Received date: 1<sup>st</sup>  
December 2024 / Accepted date: 16<sup>th</sup>  
December 2024*

**Abstract:** *This study aims to examine the psychometric properties of the Career Decision Self-Efficacy Scale-Short Form (CDESES-SF) among Malaysian University Students. The research specifically focused on evaluating the inventory's reliability, validity, and conducting an item analysis. Data were collected from a sample of 299 (97 females, 202 males) respondents consisting of students from Universiti Malaysia Sabah. The survey was administered through Google Forms and disseminated via WhatsApp. CDESES-SF comprises 25 items to measure five dimensions which are self-appraisal, gathering occupational information, goal selection, making plans, and problem solving. The reliability of the instrument was tested using internal consistency (Cronbach's Alpha). The effectiveness of each item in the instrument was tested using item-inter correlation. Test validity was measured through convergent validity to assess the correlation between different items of the same construct and concurrent validity to examine the correlations between CDESES-SF subscales and Self Value measure from Personal Life Values (PLV). The reliability for the total scale showed a good consistency with a Cronbach's Alpha value of 0.93. All the subscales of CDESES-SF had met the reliability criterion within the value of .70 except for Goal Selection (Cronbach's Alpha = 0.69). The item analysis revealed low to adequate internal consistency, with Cronbach's Alpha ranging from 0.152 to 0.678. The analysis also identified two items that require improvement to enhance the instrument's reliability. The convergent validity of the instrument was significantly and positively correlated with each subscale. The concurrent validity examined the positive and significant correlations between CDESES-SF subscales and Self Value measure from Personal Life Values (PLV). These findings contribute to the overall validation of CDESES-SF as a reliable instrument for assessing career-decision self-efficacy, emphasizing its utility in research and practical applications.*

**Keywords:** Psychometric properties, career decision self-efficacy scale-short form (CDESES-SF), Malaysia university student.

Career decisions are one's career plans according to their individual skills, abilities, aspirations, and goals, as tempered by labour market realities and personal environments. It refers to the procedure processed by an individual's which the career goals are developed and accomplished (Koutsopoulos et al., 2017). Therefore, an individual will be able to achieve desired goals and receive offers from the wished job more smoothly if they recognize the way to make career decisions (Indeed Editorial Team, 2023). Career decisions involve thinking about your decision making, knowing how you make decisions, knowing about yourself and knowing about your options. (The Career Center, n.d.).

Self-efficacy refers to an individual's belief in their ability to successfully perform the necessary actions to accomplish specific performance objectives (Bandura, 1977). Self-efficacy in career decisions represents the confidence that an individual possesses to manage the quests involved in career decisions such as gathering occupational information, goal selection, making plans, and problem solving. (Betz and Hackett, 2006; Ozlem, 2019). It is essential because it influences how individuals think about themselves and whether the individuals achieve their desired pathway in career development. The idea of self-efficacy is built around Albert Bandura's social cognitive theory which highlights

the function of observational learning, social experience, and reciprocal determinism in personality development (Nickerson, 2023). People who have high self-efficacy often tend to be those who accomplish and succeed more frequently than others (Ackerman, 2023). Example of one's behavior with high self-efficacy is a man who has bad luck on his date which passed a week ago has faith in himself that next time he will do better.

Career Decision Self-Efficacy Scale (CDESES) is a tool that analyzes an individual's level of belief on his or her ability to accomplish the tasks required for making crucial career choices (Betz & Taylor, 1993). The CDESES contain five subscales to measure the five Career Choice Competencies of John O. Crites' Theory of Career Maturity which are goal selection, occupational information, problem solving, planning and self-appraisal (Betz & Taylor, 1993). This scale is accessible in both a 50-item and a 25-item short form. (Stella Learning and Research Center, n.d.). A study conducted by Reddan (2015) utilized the Career Decision Self-Efficacy Scale (CDESES) to assess the effectiveness of Field Project A's educational activities in enhancing students' confidence in making career decisions. The study focused on students pursuing real-world positions in industries relevant to their undergraduate studies in Exercise Science. Researchers found that the CDMSE has been frequently used in career counseling

literature and is associated with several important variables in career assessment (Nilsson et al., 2002). Thus, the objective of this study is to examine the psychometric properties of Career Decision Self-Efficacy Scale (CDSES) by using Malaysian university students as a sample of study.

## Literature Review

There are a number of psychometrics studies that are related to our instrument, which is Career Decision Self-Efficacy Scale-Short Form (CDSES-SF). CDSES-SF is an instrument that is invented based on two theoretical perspectives which is the theory of self-efficacy and the theory of career maturity. The CDSES primarily evaluate an individual's self-confidence in their ability to make career decisions by focusing on behaviors related to the decision-making process. The construct is established by utilizing the behavioral indicators that delineate the five domains of proficiency for making career decisions as outlined in Crites' hierarchical model of career maturity, which encompass self-evaluation, strategizing, objective determination, gathering occupational information, and resolving problems.

There was a study that was conducted by Hampton (2006) that examined the reliability and validity of the CDSES-SF in Chinese high school students. The study involves 183 high school juniors from a public high school in a northeast city in China that range from 16 to 20 years old in this research. The investigator used Career Decision Self-Efficacy Scale - Short Form (CDSES-SF) and General Self-Efficacy Scale (GSES) as instruments of this study. CDSES-SF scale was used to measure five domains of career decision self-efficacy and GSES scale was used to measure general self-efficacy expectations. The informed consent and assent forms were distributed to the parents and eleventh graders prior to the commencement of the study. The participants were given research questionnaires at the end of class, and they had to fill them out and turn them in during class. Those who did not want to participate in the study, on the other hand, were allowed to leave the classroom before the questionnaires were distributed. The result of the study showed that the distribution of all the scores was fairly normal. It supported that the CDSES-SF had high internal consistency when used with Chinese high school students. Individuals with elevated language scores exhibited a positive correlation with increased levels of career decision self-efficacy. Nevertheless, the data did not lend credence to the proposed five-factor structure. The current study's sampling method limitations make it challenging to determine whether this is the result of a cultural factor.

According to the study conducted by Miller et al. (2009) on the confirmatory test of the factor structure of the short form of the career decision self-efficacy scale, the study was conducted to test several theoretically and empirically derived measured models of Self-Efficacy Scale - Short Form (CDSES-SF) using confirmatory factor analysis. It was also conducted to examine the invariance of the CDSES-SF measurement model across different samples. The study was conducted from two independent samples among 509 participants (267 Asian American Sample and 239 European American Sample) from different Universities in the Midwest. The instrument used in conducting the research is the Career Decision Self-Efficacy Scale Short Form (CDSES-SF), which was a 25-item instrument developed by Betz, Klein, and Taylor (1996). The test undergoes three procedure, the five-factor model of the CDSES-SF tested with confirmatory factor analysis, four alternative measurement models to compared with CDSES-SF, and multisampling confirmatory factor analysis and likelihood ratio tests to examine the metric invariance of CDSES-SF. The study found that the five-factor model of the CDSES-SF proposed by Betz et al. (1996) demonstrated adequate model

fit in two independent samples, suggesting that the scale has good psychometric properties. The study also found that 23 of the 25 CDSES-SF items demonstrated metric invariance, suggesting equivalence in the way in which items were interpreted across Asian and European American samples. These findings provide support for the validity of CDSES-SF as a measure of career decision-making self-efficacy. However, the study also highlights the need for further research to explore the cross-cultural validity and predictive validity of the scale.

A research article conducted by Kavas (2013) on a psychometric evaluation of the career decision self-efficacy scale-short form with Turkish University students was published with the purpose of examining the psychometric properties of the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF). The participants in this study were 695 university students enrolled in five different faculties at Middle East Technical University in Turkey. The research instrument used in this study is the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF). Its purpose is to measure an individual's degree of belief that he or she can successfully complete tasks necessary to making career decisions. The second instrument used was the Generalized Self-Efficacy Scale (GSES) and its purpose is to measure general perceived self-efficacy. In conclusion, the study found that the reliability of the total scale of the CDSES-SF was high, and there were moderate to high correlations among the four factors. The correlations between the total CDSES-SF score and GSES was found to be .65 ( $p < .01$ ), suggesting that greater self-efficacy in career decision-making correlates with greater self-efficacy in general. The four factors of the 18-item CDSES-SF were goal selection, problem-solving, information gathering, and goal pursuit management. The reliability of the total score was .88, which can be considered high. The correlations among the four factors ranged from moderate to high. Lastly, the selection of participants from the most prestigious, competitive, and high-ranking state universities in Turkey constitutes a limitation of the study. Hence, the obtained findings can only be generalized to similar populations. It is recommended that future research incorporates samples that are more diverse in nature, comprising individuals from various age groups and attending state and private universities situated in different regions of Turkey.

A study aims to assess the factor structure, discriminant validity, and concurrent validity of the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF) in a sample of high school students from Italy was conducted by Alessandro Lo Presti, Francesco Pace, et al. (2012). It focuses on the structure of the CDSES-SF among high school students in Italy. They were also interested in how well a one-factor and a five-factor structure fit a large number of Italian students. The total of the participants was 3390 Italian students which included 1260 males and 2130 females. The CDSES-SF test consisted of 25 items with a 5-point Likert-type response continuum and was completed by participants. In addition, the Career Decisions Scale (CDS) was used to assess career certainty and career indecision. It has 19 items which have ratings on a 4-point scale from one to four. The researchers randomly chose 2190 participants for confirmatory factor analysis. The results show that the five-factor model performs better on statistical indicators, exhibiting lower Root Mean Square Error of

Approximation (RMSEA) values of 0.07 and higher Comparative Fix Index (CFI) values of 0.94. The study found support for scalar invariance, indicating similarity in intercept values across different groups. It also tested for strict factorial invariance by fixing the error variances of the measurement items, suggesting similarity in residual variances across these groups. However, the results revealed a significant increase in chi-square and a slight decrease in CFI, implying incomplete support for strict factorial invariance. The five factors align closely with theoretical concepts and the items related to these

factors show strong associations. The similarity between the factor loadings in the Italian sample, compared to the data from a European American sample confirms the robustness of the factor content. Each factor explained between 32% and 38% of the variance in the measured items, which indicates a good explanatory match between these factors and the data. In short, this research has certain limitations such as the utilization of a convenience sample and the lack of an evaluation of the questionnaire's test-retest reliability.

An article was written by Hampton (2005) with the purpose of exploring and testing the most appropriate measurement model of the Career Decision Self-Efficacy Scale-Short Form (CDSSES-SF) for Chinese college students and to cross-validate the structure of this model with an independent sample of Chinese college students. This study consists of two samples of respondents. The first sample consists of 256 college students, while the second sample consists of 157 college students. Random sampling method was used in this study, in which the questionnaire was distributed to the students during the regularly scheduled meeting time. All those respondents were students from two different colleges in China. The original 25-item CDSSES-SF was not supported by the data derived from a sample of 256 Chinese college students (Sample 1). However, a modified 13-item, three-factor model of the CDSSES-SF fit the data well, with standardized factor loadings and goodness-of-fit indexes that were adequate and a reliability coefficient of 0.85. The alternative three-factor model of the CDSSES-SF was still inadequate based on the results of a confirmatory factor analysis (CFA). In order to enhance the conciseness of the CDSSES-SF, the alternative three-factor model was respected. Items that exhibited dual loadings or a tendency towards redundant content were eliminated in accordance with modification indices. The outcomes of a CFA indicated that the 13-item scale that was respecified fit the data from Sample 1 quite well. The results of the study support that the 25-item CDSSES-SF has high internal consistency reliability when used with Chinese college students. The overall alpha reliability coefficient for the CDSSES-SF was 0.91, and all five subscale alpha coefficients were moderate and within the acceptable range.

## Method

### Respondents

The study included a stratified random sample of students from the Universiti Malaysia Sabah. The respondents were a total of 299 students, of whom 97 (32.4%) were female and 202 (67.6%) were male. Their age ranged from 19-37 years old, with a mean age of 22 years old ( $SD = 2.03$ ). In terms of ethnic background, 35.1% were Malay, 8.7% were Chinese, 0.7% were Indian, 20.4% were Kadazandusun, 8.4% were Bajau, 2.0% were Murut, 4.7% were Melayu Brunei, 3.3% were Iban, 2.0% were Bidayuh, 14.7% indicated as "Other" ethnic. While in terms of religion background, there were 67.6% Muslim students, 4.7% Buddhist students, 27.4% were Kristian, and 0.6% indicated "Other". Based on the collected data, 68.9% respondents came from B40 category with a monthly income status below RM4849 while there were 25.4% from the M40 category (monthly income between RM4,850-RM10,959) and 5.7% from the T20 category (monthly income above RM10,960). In terms of the place of living, there were 53.5% of respondents living in the city while 46.5% of the respondents living in the rural area.

### Instruments

The Career Decision Self-Efficacy Scale-Short Form (CDSSES-SF) was developed by Betz et al. (1996) to measure an individual's self-belief in their ability to make effective career decisions. The CDSSES-SF consisted of 25 items to measure five dimensions: self-appraisal, gathering

occupational information, goal selection, making plans, and problem solving. Self-appraisal refers to the process of evaluating one's own skills, abilities, interests, and values to make informed career choices. Gathering occupational information is an individual's confidence in their ability to gather, understand, and apply information about different occupations to make informed career decisions. Goal selection is defined as an individual's confidence in their ability to identify and select appropriate career goals. Making plans for the future refers to an individual's overall confidence in their abilities to make effective career choices and manage their career development. Last, problem solving is defined as an individual's belief in their capabilities to effectively manage and resolve problems related to their career choices and development. The respondents were asked to rate their level of confidence with each statement on a scale from 1 (not confident at all) to 7 (complete confidence). The higher the rating indicated the higher levels of career decision self-efficacy.

Personal Life Values (PLV) was developed by Hyde and Weathington (2006) to measure how people place value on work, family, religion and themselves and how that choice influences commitment, consciousness, and honesty in the workplace. These values refer to an individual's enduring, internalized convictions regarding their behavior and their capacity to anticipate how they will perceive and assess external stimuli (Perrewé & Hochwarter, 2001). The scale consisted of 24 items to measure four dimensions: work value, family value, religion value, and self-value. Respondents were asked to self-report their similarity to each item using a 5-point Likert scale (1 = not like me at all; 5 = very much like me). Example items were: "I never think very highly of myself. My assignment/assignment/work is my highest priority to take care of" and "I do not value my family. I value my family more than anything else" and "Religion is not a priority to me. My religion is my highest priority" and "I never think that I am an important person. I am an extremely important person." The higher the score for the similarity to the person being described, the higher the importance that is attached to that value.

### Data Analysis

Data was analyzed using IBM SPSS Statistics Version 29.0. The internal consistency Cronbach's alpha method was used to evaluate the scale's reliability, ranging from 0.68 - 0.82 indicates good reliability (Polit & Beck, 2010). The validity of CDSSES-SF was assessed using convergent validity and concurrent validity. The relationship between the CDSSES-SF dimensions was examined to assess the convergent validity of the instrument. The inter-correlations between the subscales of the CDSSES-SF were used to further evaluate the evidence of convergent validity of the scale. Other than convergent validity, the concurrent validity was also used by correlating CDSSES-SF to self-value scale. A correlation coefficient between 0.40 and 0.70 suggested that the convergent and concurrent validity met the acceptable criterion (Chassany, et al., 2002).

## Results

### Reliability of Career Decision Self-Efficacy Scale-Short Form (CDSSES-SF)

The reliability of the Career Decision Self-Efficacy Scale-Short Form (CDSSES-SF) was examined by using the internal consistency method with Cronbach's Alpha with a criterion between .70 and .90, indicating good reliability (Jahrami et al., 2023). The data in Table 2 showed that the entire CDSSES-SF instrument obtained a Cronbach's Alpha coefficient ( $\alpha = .93$ ). This result was supported by the study which also has high internal consistency reliability, according to Hampton (2005). Therefore, the reliability of the CDSSES-SF instrument has met the criterion, indicating good reliability. The Cronbach's Alpha for all the subscales of CDSSES-SF in the study ranged

from 0.69 to 0.83 (refer to Table 2). The findings found that one of the subscales, goal selection did not meet the criterion, which indicated that the reliability of the subscale showed a

moderate reliability. Among the five subscales, planning has the highest Cronbach's Alpha coefficients, which is ( $\alpha = .83$ ).

**Table 2. Internal Consistency Cronbach's Alpha for The Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)**

Instrument	No of items	Items	Cronbach's Alpha Coefficients
<b>Total CDSES-SF</b>	<b>25</b>	<b>1-25</b>	<b>.93</b>
<b>Subscale of</b>			
Self-appraisal	5	5, 9, 14, 18, 22	.72
Occupational information	5	1, 10, 15, 19, 23	.70
Goal selection	5	2, 6, 11, 16, 20	.69
Planning	5	3, 7, 12, 21, 24	.83
Problem solving	5	4, 8, 13, 17, 25	.71

#### Item Analysis of Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)

The item analysis was performed utilizing the item-total correlation method. Item-total correlation serves as a measurement of the relationship between individual items and the total score of a test. In this study, we used the criterion value of 0.30 suggested by Cristóbal et al. (2007) as a minimum threshold to assess the quality of individual items.

The result showed in Table 3 demonstrated that the item-total correlation coefficient of all the items had met the cutoff point suggested by Cristóbal et al. (2007), except for item CD\_MS\_ES18 ( $r = .177$ ) of Self-appraisal and item CD\_MS\_ES16 ( $r = .152$ ) of Goal selection. The analysis also showed that the Cronbach's Alpha of these items will increase to .816 and .794 respectively if the items are deleted. Items with correlations below the cutoff point may be considered for further evaluation, as they may not be adequately related to the overall construct being measured.

#### Validity of Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)

The convergent validity of the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF) was tested using the correlation method by examining the relationship among the subscales of CDSES-SF. As shown in Table 4, all the subscales of the instrument correlated significantly and positively indicated that the subscales of the instrument are intended to measure the same construct. The highest intercorrelations were found between the Occupational information and Planning subscales with  $\alpha = .802$ , followed by the correlation between the Self-appraisal and Goal selection subscales with  $\alpha = .797$ . The convergent validity of this scale was further supported by these findings. Although, the intercorrelation between the Occupational information and Problem-solving subscales ( $\alpha = .709$ ) was the lowest but it is still in the highly correlated range.

The establishment of concurrent validity for the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF) involved evaluating the significant and positive correlations between the scores obtained from subscales and the scores obtained from Self value measure by Hyde and Weathington (2006). Self-value can help individuals feel more confidence in their decision-making abilities, which can result in proactive career choices and increased motivation to achieve their professional goals. Individuals with high perception of self-esteem were more likely to set goals and strive for success, which enhanced their self-efficacy in making career decisions (Park et al., 2018). The result shown in Table 4 indicated that all five subscales of CDSES-SF and Self Value from the instrument Personal Life Values were positively correlated and the correlation coefficient values ranging from  $\alpha = .219$  to  $\alpha = .301$ . The highest correlation was between Goal selection and Self value scale

( $\alpha = .301$ ), followed by Self-appraisal ( $\alpha = .289$ ), Occupational information ( $\alpha = .266$ ), Problem solving ( $\alpha = .247$ ), and Planning ( $\alpha = .219$ ). The significant and positive correlation validated the convergent validity of the instrument CDSES-SF.

### Discussion

#### Reliability of Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)

The current study aimed to investigate the psychometric properties of career decision self-efficacy Scale-Short Form (CDSES-SF) by Betz, Klein, and Taylor's (1996), which include five dimensions consisting of self-appraisal, gathering occupational information, goal selection, making plans, and problem-solving. The internal reliability of the instrument was tested using Cronbach's Alpha coefficient and shows that the instruments met the criterion of having good internal reliability. The examination of individual subscales exposed a slight discrepancy, the goal selection subscale did not meet the minimum criterion. The outcome was believed to be influenced by the lower scores observed in the item-total scale correlation of the scale item within the Goal Selection subscale. The obtained result was supported by a previous study which shows the Goal Selection subscale also falls below the acceptable range of internal reliability (Gaudron, 2011). However, the result of the current study was inconsistent with the result obtained from another previous study which shows that the Goal Selection was one of the subscales with the highest internal reliability (Hampton, 2006). On the other hand, the 'Planning' subscale has the highest reliability coefficient among other subscales, this is because the items within the subscale demonstrate higher internal consistency, indicating that they are closely related and measure the same underlying construct effectively.

#### Item Analysis of Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)

The finding of the item analysis shows that the item-total correlation coefficient of all the items met the criterion value of 0.30 as suggested by Cristóbal et al. (2007) except for item CD\_MS\_ES18 of Self-appraisal and item CD\_MS\_ES16 of Goal selection. The current study shows that the Cronbach's Alpha coefficient of CD\_MS\_ES18 and CD\_MS\_ES16 will increase if it is removed. However, it is wise to identify the removal of these items because it might be meaningful to our study from a theoretical aspect rather than statistical criteria. According to previous study, the subscales of goal selection and self-appraisal may not be adequately reflected in the 25-item CDSES-SF when it was used with populations that are culturally diverse (Creed et al., 2002). Items that are culturally biased to the respondents

may yield lower correlations. Therefore, it is important to ensure that the items resonate with the cultural and contextual background of the respondents to increase their relevance. Furthermore, the items' low reliability coefficient was caused by their clear tendency to measure distinct characteristics, particularly when it came to accurate self-appraisal (Gaudron, 2011).

#### Validity of Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)

The convergent validity was tested by using the correlation method and showed there were significant positive correlations between all the subscales of the instrument. The occupational information, planning, self-appraisal, goal selection and problem solving highlighted the interconnection of these aspects within the area of career decision-making. The item-total correlation coefficient for most of the items met the criterion which represents a better relationship between each item. The total score also showed a good contribution to each item, and it supports that the result of convergent validity is a positive correlation. This could also

indicate that individuals who are confident in one area of career decision-making, which as measured by a subscale also tend to be more confident in related areas. This finding was consistent with the result of the previous studies that suggested the learning activities and assessment items related to these aspects significantly improved students' self-efficacy in making positive career decisions (Reddan, 2015). However, the intercorrelation between the Occupational information and problem-solving subscales was considered high and met the criterion. While this correlation was the lowest compared to others, an alpha coefficient above .70 is generally considered acceptable for demonstrating convergent validity (Cortina, 1993). This correlation suggests that individuals' confidence in gathering job information might not directly match their confidence in solving career-related problems. In the previous study by Lent et al. (1994), the study found that the absence of a significant correlation between career decision self-efficacy and career performance implies that having confidence in making career decisions does not necessarily ensure success in one's chosen career.

**Table 3. Item Analysis of the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF)**

Domain	Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self-appraisal	CD_MS_ES5	.545	.636
	CD_MS_ES9	.612	.615
	CD_MS_ES14	.620	.618
	CD_MS_ES18	<b>.177</b>	.816
	CD_MS_ES22	.577	.635
Occupational information	CD_MS_ES1	.319	.715
	CD_MS_ES10	.614	.578
	CD_MS_ES15	.395	.681
	CD_MS_ES19	.444	.660
	CD_MS_ES23	.575	.610
Goal selection	CD_MS_ES2	.450	.632
	CD_MS_ES6	.566	.583
	CD_MS_ES11	.638	.550
	CD_MS_ES16	<b>.152</b>	.794
	CD_MS_ES20	.554	.596
Planning	CD_MS_ES3	.538	.817
	CD_MS_ES7	.624	.791
	CD_MS_ES12	.637	.785
	CD_MS_ES21	.642	.786
	CD_MS_ES24	.678	.773
Problem solving	CD_MS_ES4	.521	.638
	CD_MS_ES8	.387	.686
	CD_MS_ES13	.445	.670
	CD_MS_ES17	.422	.677
	CD_MS_ES25	.583	.614

**Table 4. Intercorrelations Among Subscales of the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF) with Self Value**

Subscales	Occupational information	Self-appraisal	Goal selection	Planning	Problem-solving
Occupational information		.734**	.750**	.802**	.709**
Self-appraisal			.797**	.796**	.763**
Goal selection				.756**	.711**

Planning					.739**
Problem-solving					
Self-value	.266**	.289**	.301**	.219**	.247**

\*\*p <.001

In concurrent validity, the Personal Life Value by Hyde and Weathington (2006) was used to assess a specific concept called ‘Self Value’. It was used to compare the scores obtained from this tool with the scores of various subscales of CDESES-SF such as Goal selection, Occupational information, etc. to verify the CDESES-SF accurately measures career decision self-efficacy related to the ‘Self Value’ concept. A positive correlation between CDESES-SF subscales and Self Value measure showed alignment with broader personal values. These findings offer a detailed insight into how each aspect of CDESES-SF connects with an individual’s overall sense of self and values. The study by Hyde and Weathington (2006), provides indirect evidence in support of this finding which suggests that individuals with a strong sense of self-value and personal value aligning with career goals are more likely to have a positive work attitude and greater career success. While it does not directly address the correlation, the insights from this previous study indirectly support the broader concept of positive relationships among personal values and career decision self-efficacy. The correlation between these two instruments has not been extensively studied. There is a pressing need for more in-depth research in the future to comprehensively explore this field.

### Conclusion

In short, we believe that this study presents helpful guidelines for the evaluation of Career Decision Self-Efficacy Scale-Short Form (CDESES-SF) in Malaysia. All the subscales of the instrument showed that the subscales of the instrument are intended to measure the same construct. It has proven that the data collected by using CDESES-SF is accurate to what it aims to measure. Furthermore, all the subscales are showing a high level of reliability except for goal selection that did not meet the criterion value. It means that except goal selections, other subscales are able to perform a consistent score even though it has been tested multiple times in different conditions. However, we cannot deny that there are several limitations in our study, and we hope that further research can enhance these factors. Firstly, the generalizability of the research. Future research is advisable to collect data from larger samples to strengthen the external validity of the study. This will improve the generalizability of the findings, and the data collected will be able to represent the population (Nikolopoulou, 2023). Moreover, self-report measures consist of a certain level of biases as respondents might give answers that are socially accepted. As a result, the data we collected cannot be considered as accurate in current circumstances. Therefore, it is suggested to collect data with multiple methods as it is able to decrease the possibility of bias and improve the reliability (Evaluating Multiple Sources Who Verify Information | Stony Brook Center for News Literacy, n.d.).

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