# **Career Adaptability Across Southeast Asia: A Systematic Review**

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# Abstract

Southeast Asia has recently seen a number of developments and transformations that requires one to adjust to as the region's skill requirements are evolving. For some these new changes brings new opportunities, however, for some greater levels of career adaptability is need to manage these new developments and transformations. The necessity of systematically reviewing articles on career adaptability in Southeast Asian nations is made apparent by this particular instance. A systematic review of career adaptability in Southeast Asia was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. About 22 eligible studies were identified. The findings indicated that the most prevalent groups in career adaptability studies were students, followed by working adults. Antecedents such as role modeling and cultural intelligence were identified. Four categories of predictors were identified such as personal, educational, career behavior, and environmental factor. Two categories were identified for the outcomes of career adaptability, namely, personal and career outcomes. Findings revealed that career adaptability offers several beneficial outcomes such as improved employability skills and life satisfaction. Discussion includes conditions faced in Southeast Asian countries and cultural differences. The dearth of studies within multicultural settings calls for further research in exploring career adaptability, as this broaden cultural understanding and awareness of educational and career behaviors pertaining to one's career adaptability. This study offers important practical implications and recommendations for career counseling practices and policymakers in Southeast Asia that would potentially benefit students and working adults.

#### **Plain language summary**

#### Career adaptability across Southeast Asia: A systematic review

Trends and changes have recently emerged in Southeast Asia that necessitates individuals to adapt to these as skill requirements are changing. Emerging trends such as globalization, technological advancement, changes in demographics, migration, climate changes, and the recent pandemic have impacted the skills an individual needs. This systematic review article is conducted using the PRISMA guidelines. Inclusion and exclusion criterions were chosen which were used to carry out the search strategy. Articles went through various levels of screening before being included. There were 22 eligible studies identified and synthesized. Since career adaptability is a learning process that starts early in life, intervention strategies to encourage career adaptability should be developed for young people as early as possible before they step into the working world. One limitation noticed is that almost all the studies in this review, except for one study, are quantitative studies that employed the cross-sectional approach. This paper provides an overview of career adaptability in Southeast Asia.

#### Keywords

career adaptability, Southeast Asia, systematic literature review

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# Introduction

The COVID-19 pandemic has affected many globally (Ford & Ward, 2021). Besides the loss of lives, economic and employment losses were also prevalent. Many changes are forecasted as the world shifts from the pandemic to the endemic phase. In the early days of the lockdown caused by the pandemic, many lost their jobs while others struggled to cope with the changes and adapt to the new normal, such as working from home and attending classes online. Although this transition was easy for some, many struggled to cope. The pandemic and the lockdown restrictions, the ongoing war between Russia and Ukraine, economic decline, and uncertainties have caused numerous struggles for individuals, particularly impacting their mental health (Balakrishnan et al., 2023), ability to adapt to the virtual nature of their jobs (Gao & Sai, 2020), and adjusting to online school, college, and university classes (Bunga et al., 2022; Gumarang Jr, 2022; Kohli et al., 2021).

Based on the career construction theory (CCT), individuals should handle any career-related activities by being concerned for their future, having the drive to control, and being impactful in their career choices. Individuals should seek insights regarding career prospects and options, confidently plan their future careers, and execute those plans accordingly (Savickas, 2005). Career adaptability is a skill that reflects an individual's ability to navigate and respond to career tasks and challenges within their environment (Zacher, 2014). Thus, career adaptability is a crucial and highly relevant skill in today's rapidly changing world. Career adaptability is not only essential for working individuals but also crucial for the younger generation, as career adaptability is an ever-changing skill that can be developed from childhood.

Career adaptability is known as "the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions" (Savickas, 1997, p. 254). Career adaptability is a required skill as it has the capability to influence one's capacity to adjust to unexpected changes in work tasks and career plans (Ebenehi et al., 2016; Rottinghaus et al., 2012). An individual's career adaptability is not fixed, as it changes according to the environment and time (Bocciardi et al., 2017; Hamtiaux et al., 2013). An individual with career adaptability skills can accommodate changes that occur to easily adjust to the work environment (Ebenehi et al., 2016). Although there are several ways to define career adaptability, according to CCT, career adaptability revolves around how individuals assign meaning to their careers and work through their past, present, and future plans and experiences (Savickas, 2013). Specifically, career adaptability skills are needed for individuals to accustom themselves to the ever-changing environment in their work, community, and globally (Savickas & Porfeli, 2012).

Career adaptability comprises four skills or resources, which are concern, control, curiosity, and confidence. The concern is focused on one's positive perception of their future career. Control emphasizes one's ability to ensure that they are in control of the situation and allow themselves to be responsible for the situation. Curiosity focuses on one's capability to grow the chances they have in their career through the exploration of opportunities and potential. Lastly, confidence emphasizes the trust one has in oneself and one's capabilities to obtain what is needed to achieve career goals (Savickas et al., 2009; Savickas & Porfeli, 2012).

This systematic review focuses on articles from countries located in the southeast of Asia. Asia is the largest continent in the world and rich in diversity. It can be divided into six subcontinents: North Asia, Central Asia, South Asia, East Asia, Southeast Asia, and Western Asia. Russia and Siberia are countries in North Asia. Central Asian countries include Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Countries in South Asia are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. China, Hong Kong, Macau, Tibet, Japan, Mongolia, North Korea, South Korea, and Taiwan are countries in East Asia. Southeast Asian countries include Myanmar, Thailand, Laos, Vietnam, Cambodia, Indonesia, Brunei, East Timor, Philippines, Malaysia, and Singapore. Lastly, Armenia, Azerbaijan, Bahrain, Cyprus, Egypt, Georgia, Iran, Iraq, Israel, and Jordan are Western Asian countries.

When looking at the socioeconomic nature of Southeast Asian countries, the countries are still undergoing challenges caused by the everchanging global geopolitical and economic landscape along with the interchange among major powers (Seah et al., 2024). According to the report by Seah et al. (2024), it was found that the top three concerns of Southeast Asia nations are unemployment and economic recession, climate change and economical tensions between major powers. An example of one such impact is the economic situation in Malaysia. The war in Ukraine had increased inflation in Malaysia causing food prices to hike and even though the inflation has moderated, the prices had still not decreased as compared to during the prepandemic times (Nambiar, 2024). The Southeast Asian countries can be categorized into three income economies; (a) high income economies that includes Singapore and Brunei: (b) upper-middle-level income economies that includes Thailand and Malaysia; and c) lower-middle-income economies that includes Vietnam, Laos, Cambodia, Myanmar, Indonesia, and the Philippines (Lim et al., 2022). As for the cultural nature of Southeast Asia countries, it is well known that those from Asia are collectivists while those from the Western cultures are individualistic. For instance, when conducting business in Indonesia, the Indonesian culture emphasizes on group interest, secureness, unity, maintaining dignity (or not losing face), prioritization of immaterial rewards and things take time to process (Kunstmann, 2022). Moreover, an increase has been seen in Southeast Asia countries' participation in higher education. Expansion on the access to higher education became a necessity due to the rise in school-age children and the middle class. However, Cambodia, Laos, Myanmar, and Vietnam are still falling behind despite the increase in higher education enrollment among the Southeast Asia nations. The privatization of higher education has resulted in challenges with quality assurance and unequal access, particularly for less wealthy students from rural and remote areas (Lim et al., 2022).

It can be seen that these numerous trends and changes that recently emerged in Southeast Asia has brought the need for individuals to adapt to these as skill requirements are changing. Emerging trends such as globalization. technological advancement, changes in demographics, migration, climate changes, and the recent pandemic have impacted the skills an individual needs (OECD, 2021). From the European Union Support to Higher Education in ASEAN Region (SHARE) project, it was found that post-pandemic Southeast Asian countries have the potential to be crucial importers and exporters globally. In order to accomplish that, it is foreseen that upskilling becomes pertinent for economic inclination and employability (Lim et al., 2022). Some of these emerging trends open up new opportunities for job seekers, nevertheless, some require individuals to have higher career adaptability levels to navigate these emerging trends and changes. More research on career adaptability is needed to shed light on the importance of career adaptability in today's trends and changes, however, there is limited research on the topic of career adaptability observed across Southeast Asian countries as it is still an emerging topic. Therefore, these situations underscores the importance of systematically reviewing articles on career adaptability in Southeast Asian countries. The present systematic review aims to identify and summarize the literature on career adaptability in Southeast Asian countries. The main research question and objective of the current systematic review are as follows:

**Research Question:** What are the antecedents, predictors, outcomes and research gaps of career adaptability across Southeast Asia?

**Research Objective:** To identify the antecedents, predictors, outcomes and research gaps of career adaptability across Southeast Asia.

This review will discuss the methodology used to conducted the systematic review which includes the search strategy, synthesis and quality assessments of the articles. This would be followed by the results which addresses the (1) study designs, populations observed, instruments and data analysis, (2) antecedents, predictors, and outcomes of career adaptability; and (3) conditions faced in Southeast Asia. Lastly, the discussion of the findings are highlighted along with the strengths and limitations of the current review, the practical implications and recommendations for future research and ends with the conclusion of the review.

## Methodology

This systematic review article provides guidelines and identifies knowledge gaps on career adaptability in Southeast Asia, serving as recommendations for future researchers. A trustworthy systematic review relies on priori planning and clear documentation of the conducted protocol (Shamseer et al., 2015). Thus, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were used in this systematic review as a guideline to document the protocol conducted. Table 1 below explains the inclusion and exclusion criteria of the articles.

# Search Strategy

An in-depth literature review was undertaken using Web of Science, ScienceDirect, and Scopus in September 2022. The search terms used to identify relevant articles are tabulated in Table 2.

The selection protocol aligns with the PRISMA guideline displayed in Figure 1. The duplicates were removed, and the remaining articles were screened for eligibility following the inclusion and exclusion criteria mentioned earlier. Finally, 22 selected articles were included in this systematic review article.

#### Synthesis

The findings from the 22 articles were synthesized to provide readers with a summary of the data gathered. The authors, article title, year of publication, country, population, sample size, study design, data analysis methods, instruments used, and results obtained are tabulated in Table 3.

Inclusion criteria of articles	Exclusion criteria of articles
From Southeast Asia	Not from Southeast Asia
Contains empirical data (quantitative,	i. Did not contain empirical data
qualitative, or mixed-methods)	<li>Review articles and dataset articles (as it does not contain empirical data or explain the methodological procedure used)</li>
Written in the English language (as researchers of this article understand it)	Published in other languages besides English
Published in peer-reviewed journals	Non-peer-reviewed (such as conference papers, books, book chapters, editorials, abstracts, theses, and dissertations)
Focused on career adaptability	i. Address mental illnesses and special needs
, ,	ii. Does not focus on career adaptability
Published until September 2022	Not accessible and were not received by the researchers before October 2022 after requesting from the original authors

Table 1. Inclusion and Exclusion Criteria.

Table 2. Search Terms Used.

Category	Search terms
Career adaptability Country	Career adaptability OR Career adaptation AND Brunei OR Cambodia OR Indonesia OR Laos OR Myanmar OR Philippines OR Malaysia OR Singapore OR Thailand OR East Timor OR Vietnam

# Quality Assessment

A quality assessment (or assessment of the risk of bias) of studies is imperative in a systematic review, as it ensures that the methodology and data analysis of the studies are adequate (Shamseer et al., 2015). The Mixed Method Appraisal Tool (MMAT) (Hong et al., 2018) was employed to conduct the quality assessment. The MMAT is an appraisal tool utilized during the quality assessment stage of a systematic review that involves qualitative, quantitative, and mixed-method methodologies. The tool required a minimum of two independent reviewers to conduct the appraisals (Hong et al., 2018). Thus, the authors recruited two independent reviewers specializing in career and career counseling to conduct the quality assessment.

The 24 articles initially identified after the screening and eligibility process did not include any qualitative studies. Therefore, the quality assessment only focused on quantitative and mixed-method methodologies. For the descriptive quality assessment of quantitative studies, the criteria included sampling strategy pertaining to the research questions, sample representation of the target population, appropriateness of measurements used, a low risk of non-response bias, and suitability of the statistical analysis used to address the research questions (Hong et al., 2018). The criteria for the mixed-method study quality assessment included rationality for conducting a mixed-method study, effective integration of quantitative and qualitative methods used, sufficient interpretation of the outputs from both methods used, appropriate addressing of divergences and inconsistencies between results of both analysis and quality criteria adherence of both methods used (Hong et al., 2018).

The two independent reviewers rigorously and diligently assessed the quality of the 24 identified articles using the MMAT. The two reviewers assessed the articles using five criteria, and the responses were recorded with "yes," "no," or "can't tell." The articles had to meet at least three criteria to be included in this review. Both independent reviewers had mutually agreed on the quality assessment of each criterion. Ten articles fulfilled all the criteria, six articles fulfilled four criteria, another six articles fulfilled three criteria, and two articles fulfilled two criteria. This review did not include the two articles that fulfilled less than three criteria (Refer to Table 4 below). Thus, 22 articles were suitable to be reviewed.

# Results

A total of 22 articles were included in this systematic review. The articles were from Philippines (n = 6), Indonesia (n = 2), Thailand (n = 2), Vietnam (n = 1), Singapore (n = 1), and Malaysia (n = 10). No articles from Brunei, Cambodia, Laos, Myanmar, and East Timor were included.

# Study Design, Population Observed, Instruments, and Data Analysis

The most common research methodology in the selected articles is quantitative studies using the survey approach, with one study employing the ex post facto approach (Mahfud et al., 2022). Only one study from the selected articles employed a mixed-method study design (Ocampo et al., 2022). For Study 1, the survey approach was

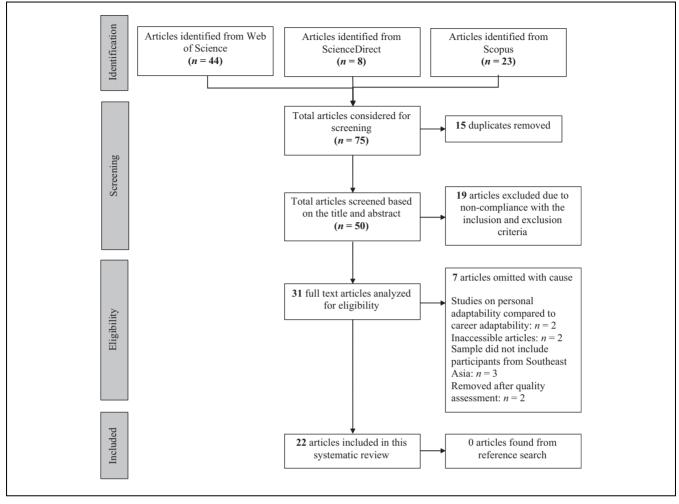


Figure 1. PRISMA model of the literature review process.

employed, while Study 2 utilized focus groups. The sample size of the selected studies ranged from 150 to 750 participants from various populations.

The student population was regularly examined, namely, high school students (Datu & Buenconsejo, 2021; Indianti & Aninditha, 2019; Ochoco & Ty, 2021), university students (Abdul Rahim et al., 2021; Al-Jubari et al., 2021; Hamzah et al., 2021; Presbitero & Quita, 2017; Tolentino et al., 2013, 2019; Uy et al., 2015), polytechnic students (Mahfud et al., 2022), and skills certification students (Ashari et al., 2019). The working adult population was also observed, specifically public organization employees or civil servants (Mohd Kamil et al., 2022; Van Nguyen et al., 2021), information and communications technology (ICT) professionals (Omar, 2018; Omar & Tajudeen, 2020), overseas and migrant workers (Ocampo et al., 2022), subordinate and supervisors (Sibunruang et al., 2016), fresh graduates (Anas & Hamzah, 2022; Mohammad et al., 2018), and employed postgraduate students (Ng et al., 2022). Garcia et al. (2019) observed the grandparent-parent-child triad in their study.

Sixteen studies utilized the Career Adapt-Abilities Scale (CAAS) (Savickas & Porfeli, 2012) to measure career adaptability. Two studies used the Career Adapt-Abilities Scale Short Form (CAAS-SF) (Maggiori et al., 2017). Ocampo et al. (2022) employed the CAAS in Study 1 and CAAS-SF in Study 2. In Mohd Kamil et al.'s (2022) study, seven items from Savickas's (1997) career adaptability were extracted and utilized. In contrast, 11 items from the CAAS were extracted and utilized in Van Nguyen et al.'s (2021) study. Nevertheless, the instrument used to measure career adaptability in Mohammad et al.'s (2018) study was not stated.

Several data analysis methods were applied to analyze the results obtained from the quantitative studies, namely Pearson correlation (Abdul Rahim et al., 2021; Hamzah et al., 2021; Mohammad et al., 2018; Mohd Kamil et al., 2022), regression analysis (Indianti & Aninditha, 2019; Mohammad et al., 2018), multiple

Author(s)	Year of publication	Country	Population and sample size	Design of the study	Data analysis method	Instruments	Results
Presbitero & Quita	2017	Philippines	514 University students	Quantitative study design using survey	Moderated multiple regression	Career Adapt-Abilities Scale (CAAS); cultural intelligence scale adapted from Ang and Van Dyne (2008) ; intention for expatriate careers scale adapted from Lee et al.	Career adaptability correlated positively and significantly with overseas career intentions, which was moderated by cultural intelligence.
Datu & Buenconsejo	2021	Philippines	324 High school students	Quantitative study design using survey	Hierarchical regression analysis	Career Adapt-Abilities Scale (CAAS); adapted items from the behavioral and emotional dimensions of the Academic Engagement and Disaffection Scale; perceived academic achievement was assessed by participants' indication of their level of overall academic achievement on a	Behavioral engagement was the strongest predictor of career adaptability characteristics, whereas perceived academic achievement was the weakest.
Garcia et al.	2019	Philippines	187 Grandparent- parent-grandchild triads	Quantitative study design using survey	Mediation model mediation model	care of 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	Role modeling mediated the relationships between the grandparents-parents- grandchildren triad's career adaptability. Grandparents' career adaptability had indirectly predicted grandchildren's career adaptability through parents' career adaptability
Tolentino et al.	2013	Philippines	289 University students & 495 working adults	Quantitative study design using survey	CFA, hierarchical model	Career Adapt-Abilities Scale (CAAS); tenacious goal pursuit and flexible goal adjustment scale adapted from Mueller and Kim (2004) ; career satisfaction scale adapted from Greenhaus et al. (1990) ; promotability scale adapted from Restubog et al. (2011)	and for the more mousting. Career adaptability had a positive relationship with adaptivity in the form of tenacious goal pursuit and flexible goal adjustment along with adaptation outcomes of career satisfaction and promotability.
Ochoco & Ty	2021	Philippines	331 Senior high school students	Quantitative study design using survey	Path analysis	Career Adapt-Abilities Scale (CAAS): Dispositional Hope Scale; Career Engagement Scale; Satisfaction with Life Scale (SWLS)	Hope to life satisfaction had a significant relationship through career adaptability and career engagement.

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Table 3. Summary of Selected Articles.

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Author(s)	Year of publication	Country	Population and sample size	Design of the study	Data analysis method	Instruments	Results
Ocampo et al.	2022	Philippines	Study 1: 168 high- skilled overseas Filipino workers	Mixed-method approach	Study 1: Mediation analysis, moderated mediation analysis Study 2: Mediation analysis, moderated mediation analysis, consensual approach, thematic analysis	Study I: Career Adapt- Abilities Scale (CAAS); work and general adjustment scale were adapted from Black and Stephens (1989) ; Short Form Measure of Cultural	Study 1: Career adaptability of the migrant workers improved their work and general adjustment, which in turn improved job performance, retention and life satisfaction outcomes.
			Study I: Used surveys	Study 2: 150 matched migrant worker and co-worker dyads	Study 2: Used surveys, focused group discussion	Intelligence (SFCQ); job performance scale adapted from Williams and Anderson (1991); retention intentions scale adapted intentions scale adapted	Study 2: The indirect effects of career adaptability on work and psychological health outcomes through work and general adjustment were stronger for migrant
						Satisfaction with Life Scale (SVLS) Study 2: Career Adapt- Abilities Scale-Short Form (CAAS-SF); focus group discussion conducted to develop work adjustment	workers with nign levels of cultural intelligence rather than low levels.
						scale; general adjustment scale adapted from Black and Stephens (1989) ; Short Form Measure of Cultural Intelligence (SFCQ); job performance scale adapted from Williams and Anderson (1991) ; Satisfaction with Life Scale (SWI S)	
Indianti & Aninditha	2019	Indonesia	662 Junior high school students	Quantitative study design using survey	Regression analysis	Career Adapt-Abilities Scale (CAAS); academic achievement measured by participants' fifth-semester average grades; Academic Self-Concept for	Academic self-concept had no significant moderating effect on academic achievement and career adaptability.
Mahfud et al.	2022	Indonesia	265 Polytechnic students	Quantitative study design using ex- post facto and survey method	Structural equation modeling	Career Adapt-Abilities Scale (CAAS); Career Decision- Making Self-Efficacy Scale- Short Form; social support scale adapted from Ray and Miller (1994) measure; teaching quality adapted from Lent et al. (1994)	Teaching quality and social support did not have a direct effect on career adaptability skills but had a direct effect on career self- efficacy however, career self-efficacy had a direct effect on career adaptability skills.

Author(s)	Year of publication	Country	Population and sample size	Design of the study	Data analysis method	Instruments	Results
Sibunruang et al.	2016	Thailand	265 Subordinate- supervisor dyads	Quantitative study design using survey	Moderated mediation analysis	Career Adapt-Abilities Scale (CAAS); ingratiation scale adapted from Kumar and Beyerlein (1991); supervisor-rated promotability scale adapted from Wayne et al. (1997); subordinate-rated career sponsorship adapted from Greenhaus et al. (1990)	Ingratiation is a behavioral mechanism that underpins career adaptation. Supervisors gave higher ratings to employees who used career adaptability resources to perform ingratiatory behaviors. The significant indirect effect of career adaptability on supervisor-rated promotability via ingratiation is stronger for those who received more career sponsorship from their
Tolentino et al.	2018	Thailand	Sample 1: 340 final year business major university students Sample 2: 547 university students from a public university	Quantitative study design using survey	Mediation analysis, moderated mediation analysis	Career Adapt-Abilities Scale -Short Form (CAAS-SF); self-monitoring ability scale adapted from Warech et al. (1998) ; job search self- efficacy scale adapted from Ellis and Taylor (1983); Intrinsic Motivation Inventory	supervisors. Career adaptability has a positive relationship with job search self-efficacy beyond the effects of gender. The conditional indirect effect of career adaptability in predicting job search self-efficacy through self-monitoring is stronger for students who put in more effort
Van Nguyen et al.	2021	Vietnam	301 Public organization employees	Quantitative study design using survey	Structural equation modeling	Career adaptability, life satisfaction, career satisfaction, work volition and job performance scales were adopted and adrated from Savickas and Porfeli (2012), Steger et al. (1990), Greenhaus et al. (1990), Duffy et al. (2012), Diener et al. (1985) and Rupp and Cropanzano (2002)	academically. Career adaptability has a positive influence on both career satisfaction and work volition, which in turn improves life satisfaction. Although adaptability helps state employees cope with their work and feel a sense of purpose in life, there was no relationship between life meaning and life satisfaction. Both career adaptability and employees' positive attitudes toward high levels of life satisfaction can improve workplace performance.

(continued)

Author(s)	Year of publication	Country	Population and sample size	Design of the study	Data analysis method	Instruments	Results
Uy et al.	2015	Singapore	750 Undergraduate students	Quantitative study design using survey	Structural equation modeling	Career Adapt-Abilities Scale (CAAS): proactive personality scale adapted from Bateman and Crant (1993) : entrepreneurial alertness adapted from Tang et al. (2012) : Boundaryless Career Attitudes scale; Protean	Entrepreneurial alertness to opportunities had a partial mediation between the relation of proactive personality to boundaryless career mindset and career adaptability, but not to self- directed or protean career attitudes.
Al-Jubari et al.	2021	Malaysia	358 Undergraduate university students	Quantitative study design using survey	Structural equation modeling	Career Autrudes scale Career Adapt-Abilities Scale (CAAS); Work Self-Efficacy Scale (WSES); Career Futures Inventory-Revised (CFLR)	Career adaptability and social support had a positive impact on job search self- efficacy and career outlook.
Ng et al.	2020	Malaysia	200 Employed and students of a postgraduate program	Quantitative study design using survey	Structural equation modeling	Career Adapt- Abilities Scale (CAAS); Hemingway: Measure of Adolescent Connectedness (adapted only 18 items); Overall Job Satisfaction Scale (adapted only 6 items); Satisfaction wich 1 ife Scale (SWN S)	Career adaptability predicted life satisfaction via connectedness and job satisfaction.
Anas & Hamzah	2020	Malaysia	423 Fresh graduate employees	Quantitative study design using survey	Multiple linear regression	Career Adapt-Autor (1000) Career Adapt-Autor (2000) (CAAS); Professional Self- Esteem Scale; International Personality Item Pool Conscientiousness Scale; Spiritual Intelligence Self- Report Inventory; Support and Coworker Support adapted from Yoon and Theo (2000)	Self-esteem, conscientiousness, spiritual intelligence and social support (personal factors) predicted career adaptability at different levels.
Omar	2018	Malaysia	393 ICT professionals	Quantitative study design using survey	Structural equation modeling	Career Adapt-Ability Scale (CAAS): Happiness Measure; Satisfaction with Life Scale (SWLS): intention to leave scale adapted from Jenkins (1993) and Krausz et al. (1955)	Higher levels of career adaptability and work happiness indicated lower levels of intention to leave.

Author(s)	Year of publication	Country	Population and sample size	Design of the study	Data analysis method	Instruments	Results
Omar & Tajudeen	2020	Malaysia	393 ICT professionals	Quantitative study design using survey	Structural equation modeling	Career Adapt-Ability Scale (CAAS); Career Commitment Measure (CCM); intention to leave scale adapted from Jenkins (1993) and Krausz et al. (1995)	Career adaptability has a positive impact on career commitment and a negative impact on the intention to leave. Career commitment has a negative relationship with intention to leave and career commitment mediated the relationship between career adaptability
Hamzah et al.	2021	Malaysia	205 Final year undergraduate university students	Quantitative study design using survey	Pearson correlation, multiple linear regression, mediation analysis	Career Adapt-Abilities Scale (CAAS); Schutte Self Report Emotional Intelligence Test (SSEIT); Rosenberg Self-Esteem Scale; Career Decision Self- Effectory Scale Short Form	and memory to reave. Emotional intelligence, self- esteem and career decision self-efficacy are significantly associated with career adaptability.
Mohd Kamil et al.	2021	Malaysia	184 Civil servants	Quantitative study design using survey	Pearson correlation, multiple linear regression	Instruments were adapted from several sources: entrepreneurial behavior (Pearce et al., 1997 ); entrepreneurial leadership (Schumpeter, 1934 ); self- efficacy (Frese et al., 1996 ) and career adaptability (Sovictor 1007)	Entrepreneurial leadership, self-efficacy and career adaptability were positively and significantly related to civil servants' entrepreneurial behavior.
Ashari et al.	2018	Malay sia	619 Students from the Malaysian Skills Certification System	Quantitative study design using survey	Structural equation modeling	Career Adapt-Abilities Scale (CAAS); career choice, career interest and career knowledge items were adapted from Department of Skills Development (DSD) (2012) ; adapted version of Career Maturity Inventory-Form C (Khamsiah, 2006 )	Career interest, career knowledge and career adaptability are positively associated with career choice. Career interest has a direct influence on career choice. Career knowledge was a significant predictor of career choice while career maturity was not a significant predictor. Career adaptability was significantly related to career choice.

(continued)

Author(s)	Year of publication Country	Country	Population and sample size	Design of the study	Data analysis method	Instruments	Results
Abdul Rahim et al.	2021	Malaysia	329 Foundation studies for agricultural science program	Quantitative study design using survey	Hierarchical multiple regression analysis	Career Adapt-Abilities Scale (CAAS); Career Maturity Inventory-Revised; Career decision-making self- efficacy (CDMSE) scale	Career competency was the strongest predictor of career adaptability in relation to career maturity. Career goal selection and career planning were the strongest predictors of
Mohammad et al.	2018	Malaysia	247 Fresh graduates	Quantitative study design using survey	Pearson correlation, regression analysis	Instruments used were not clearly stated	career adaptability in relation to career decision- making self-efficacy. Relationships between job satisfaction and career adaptability: working
							environment and career adaptability; and training and development were present.

linear regression (Anas & Hamzah, 2022; Hamzah et al., 2021; Mohd Kamil et al., 2022), mediation analysis (Garcia et al., 2019; Hamzah et al., 2021; Ocampo et al., 2022; Tolentino et al., 2019), moderated mediation analvsis (Ocampo et al., 2022; Sibunruang et al., 2016; Tolentino et al., 2019), hierarchical regression (Datu & Buenconsejo, 2021), hierarchical multiple regression (Abdul Rahim et al., 2021), moderated multiple regression (Presbitero & Quita, 2017), serial mediation model (Garcia et al., 2019), confirmatory factor analysis (CFA) (Tolentino et al., 2013), path analysis (Ochoco & Ty, 2021), partial least squares (PLS) analysis (Ashari et al., 2019; Ng et al., 2022), covariance structural equation modeling (Al-Jubari et al., 2021), and structural equation modeling (SEM) (Uy et al., 2015; Mahfud et al., 2022; Omar, 2018; Omar & Tajudeen, 2020; Van Nguyen et al., 2021). The consensual approach and thematic analysis were employed for the qualitative data analysis in the mixed-method study design (Ocampo et al., 2022).

# Antecedents, Predictors, and Outcomes of Career Adaptability

The antecedents, predictors, and outcomes of career adaptability in Southeast Asian countries were identified from the selected articles. Interestingly, only one study focused on the antecedent of career adaptability. Role modeling from a grandfather-parent-child triad was found to be an antecedent of career adaptability in the Philippines (Garcia et al., 2019). Additionally, cultural intelligence was observed as a moderation of career adaptability among high-skilled overseas Filipino workers in Ocampo et al.'s (2022) study. It can also be deduced that cultural intelligence is an antecedent of career adaptability, as it enhances one's adaptive skills when working away from home.

The predictors of career adaptability in the studies can be categorized into personal, educational, career behavior, and environmental factors. Predictors of personal factors of career adaptability were conscientiousness (Anas & Hamzah, 2022), emotional intelligence (Hamzah et al., 2021), spiritual intelligence (Anas & Hamzah, 2022), self-esteem (Anas & Hamzah, 2022; Hamzah et al., 2021), and proactive personality and entrepreneurial alertness (Uy et al., 2015). The educational predictors of career adaptability include academic achievement and academic engagement (Datu & Buenconsejo, 2021). Although academic achievement and academic engagement were found to be predictors of career adaptability, academic achievement and academic self-concept did not predict career adaptability in the study by Indianti and Aninditha (2019). Subsequently, predictors of career behavior factors in career adaptability are career goal selection (Abdul Rahim et al., 2021),

Table 4. Summary of Quality Assessment of Articles.

Article	Design of study	QA I	QA 2	QA 3	QA 4	QA 5	Criteria fulfilled	Decision to be included in study
Presbitero and Quita (2017)	Quantitative	$\checkmark$	С	С	$\checkmark$	$\checkmark$	3/5	$\checkmark$
Datu and Buenconsejo (2021)	Quantitative	, V	$\checkmark$	С	X	, V	3/5	, V
Garcia et al. (2019)	Quantitative	Ċ	Ċ	$\checkmark$	$\checkmark$	, V	3/5	, V
Tolentino et al. (2013)	Quantitative			, V	, V	, V	5/5	Ĵ
Ochoco and Ty (2021)	Quantitative	Ĵ	Ĵ	Ĵ	Ĵ	Ĵ	5/5	Ĵ
Ocampo et al. (2022)	Mixed-methods	Ĵ	Ĵ	Ĵ	Ĵ	Ĵ	5/5	Ĵ
Indianti and Aninditha (2019)	Quantitative	Ĵ	Ĵ	ċ	×	Ĵ	3/5	Ĵ
Mahfud et al. (2022)	Quantitative	Ĵ	×			Ĵ	4/5	ý
Sibunruang et al. (2016)	Quantitative	Ĵ		Ĵ	Ĵ	Ĵ	5/5	Ĵ
Tolentino et al. (2019)	Quantitative	Ĵ	Ĵ	Ĵ	Ĵ	Ĵ	5/5	Ĵ
Van Nguyen et al. (2021)	Quantitative	Ĵ	Ċ	Ĵ	Ĵ	Ĵ	4/5	ý
Uy et al. (2015)	Quantitative	Ċ		Ĵ	Ĵ	ċ	3/5	Ĵ
Salahudin et al. (2021)	Quantitative		Ĵ	×	×	Х	2/5	×
Al-Jubari et al. (2021)	Quantitative	Ĵ	Ĵ		С		4/5	
Ng et al. (2022)	Quantitative	Ĵ	Ĵ	Ĵ		Ĵ	5/5	Ĵ
Anas and Hamzah (2022)	Quantitative	Ĵ	ċ	Ĵ	Ĵ	Ĵ	4/5	Ĵ
Omar (2018)	Quantitative	Ĵ		Ĵ	Ĵ	Ĵ	5/5	ý
Omar and Tajudeen (2020)	Quantitative	Ĵ	Ĵ	Ĵ	Ĵ	Ĵ	5/5	Ĵ
Hamzah et al. (2021)	Quantitative	Ĵ	ċ	Ĵ	Ĵ	Ĵ	4/5	Ĵ
Mohd Kamil et al. (2022)	Quantitative	Ĵ		ċ	Ĵ	Ĵ	4/5	Ĵ
Ashari et al. (2019)	Quantitative	Ĵ	Ĵ	$\checkmark$	Ĵ	Ĵ	5/5	Ĵ
Omar and Noordin (2016)	Quantitative	Ĵ	Ĵ	×	×	×	2/5	×
Abdul Rahim et al. (2021)	Quantitative	Ì	Ĵ	$\checkmark$	$\checkmark$	$\checkmark$	5/5	$\checkmark$
Mohammad et al. (2018)	Quantitative	, V	ċ	ċ	Ĵ	, V	3/5	, V

Note. QA = quality assessment;  $\sqrt{=}$  yes; X = no; C = can't tell.

career planning (Abdul Rahim et al., 2021), career selfefficacy (Mahfud et al., 2022), and career decision selfefficacy (Hamzah et al., 2021). Lastly, the predictors of environmental factors in career adaptability are social support (Anas & Hamzah, 2022) and training and development (Mohammad et al., 2018). Nevertheless, in Mahfud et al.'s (2022) study, teaching support and social support did not predict career adaptability.

Numerous studies examined career adaptability outcomes, which can be categorized as personal and career outcomes. The personal outcomes of career adaptability are life satisfaction (Ng et al., 2022; Ocampo et al., 2022), tenacious goal pursuit, and flexible goal adjustment (Tolentino et al., 2013). In a study by Ochoco and Ty (2021), hope was observed as adaptive readiness, career adaptability as an adaptability resource, career engagement as an adapting response, and life satisfaction as the adaptation result. It can be understood that hope motivates individuals to be career-adaptable, enabling them to engage in their careers and ultimately leading to life satisfaction. Career adaptability offers several career outcomes. The career outcomes observed for students are career choice (Ashari et al., 2019), job search self-efficacy (Al-Jubari et al., 2021; Tolentino et al., 2019), and career outlook (Al-Jubari et al., 2021). The career outcomes observed among working adults are expatriate career intentions (Presbitero & Quita, 2017), career satisfaction (Tolentino et al., 2013), promotability (Sibunruang et al., 2016; Tolentino et al., 2013), ingratiation (Sibunruang et al., 2016), entrepreneurial behavior (Mohd Kamil et al., 2022), intention to leave (Omar, 2018; Omar & Tajudeen, 2020), career satisfaction, work volition (Van Nguyen et al., 2021), job performance, and retention (Ocampo et al., 2022).

#### Conditions Faced in Southeast Asia

The need to investigate career adaptability in Southeast Asia arises from changes in family structure, the educational system, and the economic situation. Changes in family structure are observed in terms of family connectedness. Grandparents are commonly guardians of their grandchildren as parents are dual-income earners nowadays (Garcia et al., 2019). This scenario implies that grandparents, rather than parents, play a part in role modeling for their grandchildren, possibly fostering the child's perception of career.

Changes in the educational system are also present in Southeast Asian countries. In the Philippines, 2 years have been added to K-12 (Datu & Buenconsejo, 2021). Similarly, in Indonesia, the change in the educational system requires students to select schools and majors before they enroll in high school (Indianti & Aninditha, 2019). Students must be knowledgeable in selecting their career pathways as they must begin choosing a major before entering high school. Evidently, the change in educational structures impacts students as it requires students to be well-prepared for the transition to tertiary education or the workplace after completing high school.

Due to the economic downturn, individuals opt for expatriate overseas careers in the Philippines (Presbitero & Quita, 2017). In contrast, the political climate in Thailand has impacted the economy and educational system, making the transition from school to work highly challenging (Tolentino et al., 2019). In Malaysia, the slow economy and labor market have increased the unemployment rate (Al-Jubari et al., 2021; Anas & Hamzah, 2022; Hamzah et al., 2021; Mohammad et al., 2018), and people may take on jobs they are overqualified for, leading to a skills mismatch (Anas & Hamzah, 2022; Hamzah et al., 2021). Lastly, the recent pandemic has undoubtedly affected the economy and led to changes in the employment structure (Mahfud et al., 2022).

# Discussion

This paper aims to identify and examine existing studies while providing an overview of career adaptability in Southeast Asia. Most studies applied the quantitative research methodology by employing the survey method. This method gathered substantial findings in understanding career adaptability across diverse populations in a short amount of time. Moreover, a handful of studies examined career adaptability among the student population, which indicates that career adaptability begins before an individual enters the workforce. Hence, fostering career adaptability during schooling years will benefit students once they transition to work after completing their studies. The CAAS tool is the instrument commonly used to measure career adaptability. The scale demonstrates good reliability and validity (Abdul Rahim et al., 2021; Ochoco & Ty, 2021; Presbitero & Quita, 2017), even after translation (Ashari et al., 2019; Sibunruang et al., 2016) into local languages in Southeast Asian countries. Additionally, SEM has been used vastly in the studies. This data analysis method is often used to understand the effects of the interacting variables, explore the relationship between the variables, and explain the variance for the present model (Kline, 2016).

Moreover, only one study focused on the antecedent of career adaptability, namely role modeling (Garcia et al., 2019). The role modeling antecedent indicates a common trend observed in Southeast Asian households, as many families comprise dual-earner parents working to support their families. In this situation, grandparents step up to take care of their grandchildren, which helps

maintain the connectedness in the family. Although cultural intelligence (Ocampo et al., 2022) was not directly mentioned as an antecedent of career adaptability, its presence is vital when an individual relocates from their home country for work. It is not uncommon for individuals from Southeast Asia to migrate overseas for job opportunities and career growth in recent times. This migration for work requires for the individuals to assimilate themselves to the work culture of that particular country they have migrated to. For example, they would need to understand the cross-cultural communication and multicultural ways of thinking in a variety of cultural contexts to competently accomplish their work tasks. This is when their career adaptability comes into play as career adaptability complements cultural intelligence (Ocampo et al., 2022). This is so as the individuals need to ascertain the direction and impact on their careers taking into consideration the opportunities and cultural limitations they face (Savickas, 2013).

The predictor of personal factors of career adaptability that was primarily examined was self-esteem. Selfrespect and confidence in one's capabilities influence one's levels of career adaptability. Nevertheless, for the predictor of educational factors of career adaptability, only academic achievement were studied. Findings from both studies (Datu & Buenconsejo, 2021; Indianti & Aninditha, 2019) that explored this educational factor differed. Datu and Buenconsejo (2021) found academic achievement to predict career adaptability, meanwhile, Indianti and Aninditha (2019) found that academic achievement did not predict career adaptability. There are two probable reasonings to the contradicting findings from these studies which are the unique educational system in the Philippines and Indonesia and the type of school the high school students are enrolled in. To further elaborate, the educational system in the Philippines has added 2 years to their basic education, while in Indonesia, the high school students are required to select their majors before enrolling in high school. It is possible that the high school students in the Philippines would have more time to prepare themselves for their academic and career transition. Furthermore, the high school student population investigated in Datu and Buenconsejo (2021) study were from private high schools, whereas, in Indianti and Aninditha's (2019) study, the high school student population are from public high schools where it was mentioned that these public schools did not have any career programs or career guidance teachers. Hence, the educational system of a nation and the type of high school the students are enrolled in produce potentially different results on how they achieve academically and influence their career adaptability. When examining predictors of career behavior factors in career adaptability, various factors were explored, including career selfefficacy, career decision self-efficacy, career planning, and career goal setting. Planning, setting goals, making decisions, and believing that they are able to attain their goals fosters or improves their career adaptability skills.

Besides, life satisfaction is one of the personal outcomes of career adaptability. A person with career adaptability skills can accommodate themselves to changes where they regulate or transition smoothly at the workplace when change happens (Ebenehi et al., 2016). Life satisfaction was measured using Diener et al.'s (1985) Satisfaction With Life Scale (SWLS) in Ng et al. (2022) and Ocampo et al.'s (2022) study. Life satisfaction emerged as a long-term outcome of career adaptability (Ng et al., 2022) by highlighting that individuals are more gratified and fulfilled in life as they prepare themselves for upcoming career ambiguities. Those who were working away from their countries were seen to have improved life satisfaction and work-related outcomes when they had higher levels of career adaptability (Ocampo et al., 2022). Hence, unsurprisingly, being more career-adaptable improves life satisfaction as a career is indeed a major aspect of life. Additionally, the career outcome of career adaptability among students is job search self-efficacy (Al-Jubari et al., 2021; Tolentino et al., 2019). In Tolentino et al.'s (2019) study, job search self-efficacy was measured using the scale developed by Ellis and Taylor (1983), meanwhile, in Al-Jubari et al.'s (2021) study, the Work Self-Efficacy Scale (WSES) was used. Although the instruments to measure job search self-efficacy varied, it was clear from both these studies that career adaptability had a positive impact on job search self-efficacy. When students have high levels of career adaptability, it increases their likelihood of being more confident when searching for jobs. Nevertheless, the career outcome of career adaptability among working adults is promotability. Employees with high levels of career adaptability have an increased possibility of getting a promotion (Sibunruang et al., 2016). Therefore, career outcomes of career adaptability are not only limited to working adults but also extends to students.

Finally, a similar condition faced by Southeast Asian countries in this review is the economy. Due to the unstable economy, job opportunities decreased, and work structures changed, leading many to either migrate overseas for better job opportunities (Presbitero & Quita, 2017) or agree to work in jobs where they are overqualified (Anas & Hamzah, 2022; Hamzah et al., 2021). Many struggle to secure a permanent job after graduating, and individuals could possibly feel unsatisfied with their lives and jobs or perform poorly at their jobs. This scenario emphasizes the importance of developing career adaptability skills while individuals are still in school, as it will benefit their job search after graduation.

## Strengths and Limitations

The finding from the studies in this review provides an extensive cultural perspective of career adaptability in Southeast Asia. The current review includes current conditions that address issues that affect career adaptability while also emphasizing the need for career adaptability skills in Southeast Asia. This study is possibly the first systematic review of career adaptability in Southeast Asia. It aimed to identify the antecedents, predictors, and outcomes of career adaptability. The primary limitation in career adaptability research in the Southeast Asian context is the paucity of qualitative studies conducted. Almost all the studies in this review, except for one study, are quantitative studies that employed the cross-sectional approach. Quantitative studies with a longitudinal approach or qualitative studies allow for deeper career adaptability exploration. Lastly, career adaptability research in Southeast Asia scarcely explored gender differences. Six studies mentioned gender as a control variable (Datu & Buenconsejo, 2021; Ng et al., 2022; Ocampo et al., 2022; Presbitero & Quita, 2017; Sibunruang et al., 2016; Tolentino et al., 2019). Only one study examined gender differences in career adaptability (Abdul Rahim et al., 2021). Globally, there are mixed results regarding gender differences found in career adaptability. As it is clearly evident that cultural differences are present in Southeast Asia, further research should be conducted on gender differences in career adaptability.

# Practical Implications and Recommendations

As career adaptability is a learning process that begins early in life, intervention strategies to stimulate career adaptability should be developed for young people as early as possible before they venture into the working world. This review can be a potential stepping stone in the implementation of intervention strategies for the students and working adults who are facing economic challenges from Southeast Asia. Policymakers from these nations can look into these studies and work on developing strategies to include career adaptability skills as a part of the educational curriculum to prepare students for their school-to-work transition. Schools, colleges, and universities should develop strategies to nurture and improve students' career adaptability skills. This can be done by including the predictors mentioned in this review such as self-esteem and academic achievement. In addition, workplaces should implement preventive interventions that focus on employees by effectively managing challenging tasks at work through career adaptability skills. School counselors, student counselors, career counselors, and organizational psychologists should organize peer groups and mentorship programs for students to form a supportive environment that helps cultivate career adaptability skills. Lastly, using a cultural lens in intervention strategies will help further understand career challenges faced by students or employees, which in turn develops feelings of empathy and supportiveness among superiors of students or employees such as teachers and supervisors.

# Conclusion

This paper provides an overview of career adaptability in Southeast Asia. Career adaptability is nurtured during schooling and remains vital throughout one's working years. Appropriate interventions in educational and work settings are essential to foster and improve individuals' career adaptability. The lack of studies on career adaptability in a multicultural context highlights the need for further research in Southeast Asia. Such research can inform better career counseling, mental health practices, and policymaking. More studies should examine intergroup differences such as males and females, firstgeneration students and non-first-generation, public and private schools, and workplaces while assessing cultural factors related to career adaptability.

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#### **Authors' Contributions**

All authors contributed to the study conception and design. Idea of the article: Divyashine Asok Kumar and Lau Poh Li; Literature Search: Divyashine Asok Kumar; Data Analysis: Divyashine Asok Kumar, Lau Poh Li, Chua Kah Heng, Voon Siok Ping and Lo Yueh Yea; Writing – original draft preparation: Divyashine Asok Kumar; Writing – review and editing: Lau Poh Li, Chua Kah Heng and Lo Yueh Yea. All authors read and approved the final manuscript.

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#### **Data Availability Statement**

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

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(Note: References marked with \* are included in the review)

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