# The Key Impacts of Student Satisfaction with Job Opportunity in Technical and Vocational Education and Training (TVET), Cambodia

Chanthuch, TRY Professor and Dean of Post-Graduate school, Asia Euro University, 826 Kammpuch Krum Blvd Teuk Laak I, Phnom Penh, Cambodia Email: chanthuch@aeu.edu.kh

Ngounhort, HENG Director of National Vocational Institute of Battambang, National Highway 57, Krong Battambang, Cambodia Email: hengngounhort@yahoo.com

Veasna, SOU<sup>\*</sup> Professor and researcher at Royal University of Phnom Penh, Russian Federation Blvd, Phnom Penh, Cambodia Email: souveasna75@gmail.com/sou.veasna@rupp.edu.kh

## Abstract

Aim: This article examines how a virtual case prepares students for job opportunities and satisfaction with vocational and training institutions in Cambodia. Method: This study included 244 Cambodian students at the BIT and NVIB in Battambang province, Cambodia. A self-administered and structured questionnaire captured how students experienced vocational and training institutions to meet and satisfy their job opportunities based on the job market needs and demands. Result: The results of SEM show that both the BIT and NVIB participants thought joining the vocational training curriculum they received contributed to their job satisfaction opportunities in job market needs and demands linked with the industrial needs. Conclusion: The BIT and NVIB play different roles in terms of designing "Curriculum Quality," improving "Teacher Capacity," enhancing students' "Satisfaction with Job Opportunities," and influencing "Student Decision making to study." More details of research findings are also discussed in this study.

**Keyword:** Curriculum Quality, Teacher Capacity, Satisfaction with Job Opportunities, Student Decision making to study, Vocational education and training, TVET.

**DOI:** 10.7176/EJBM/15-17-04 **Publication date:**October 31<sup>st</sup> 2023

## **1.0 Introduction**

In vocational training, the faculties, teachers, and industries must be involved in the development process for the curriculum and for schools to succeed. An effective curriculum should reflect a particular educational program's philosophy, objectives, learning experiences, teaching resources, and evaluations. It could be subject-specific or just a broad summary of what is expected. It must be a practical tool that aids educators in creating tailored plans and the necessary tools and resources to succeed. Indeed, teachers must be involved in the development process for the curriculum and for schools to achieve. An effective curriculum should reflect a particular educational program's philosophy, objectives, learning experiences, teaching resources, and evaluations. It must be a practical tool that aids educators in creating tailored plans and the necessary tools and resources to succeed (Alsubaie, 2016). A crucial component of the education system, vocational education is connected with the demands of the labor market. Vocational education offers the knowledge and skills necessary to obtain careers in the market, trying to make it a different type of learning from college or university. Teaching at the college and university level typically offers broad knowledge and theory that can be used in various occupations within an industry. Understanding the vocational education curriculum is necessary (Handayani, Ali, & Mukhidin, 2020; Maryanti & Nandiyanto, 2021). In Cambodia, an upper secondary vocational education institution called TVET (Technical and Vocational Education and Training) is a vocational center that refers to all forms and degrees of education and training that use formal, non-formal, and informal teaching methods in the classroom and workplace settings to impart knowledge and abilities necessary for employment in various economic and social sectors. It has a mission to equip skilled workers who can work professionally in the industrial sectors. TVET generates graduates with the skills corresponding to the job market's requirements to increase the growth and development of the nation's economy (Murniati, Usman, & Azizah, 2016). The industry is a stakeholder that has an imperative and specific role in accomplishing the vocational education mission. Vocational schools and

industries may develop mutually beneficial partnerships to improve students' skills and meet industry demands (Hadromi, 2018).

In higher education institution systems, Cambodia's Ministry of Education, Youth, and Sport (MoEYS) declared 2020 a nationwide closure of 124 private and public universities providing educational services for approximately 80,000 students every academic year. Each year, among 110,000 students who passed the national examination from high schools, only about 72% can continue their studies in universities. The rest, 38%, can't attend universities, which leads them to migrate to neighboring countries looking for a job to support their family (Chet, Sok, & Sou, 2022). By preventing their migration flows to neighboring countries and the capital city. Royal Cambodian Government has set up TVET in different provinces to offer skilled workers based on the job market and industrial needs. This strategy comes up in the fifth phase of the Government Triangulation Strategy, which focuses on human resource development and skills to meet the expectations of medium-high-income countries in 2030. These concepts also improve families' incomes and local economic development.

The demographic dividend in Cambodia provides great benefits, but most of its human resource base still needs to be more skilled. It will be crucial for Cambodia to update the abilities of the current workforce in addition to improving education and technical and vocational training for young individuals entering the job market. According to the population structure in Cambodia, the figure shows a relatively large age cohort comprising 20–24 years. The vast gaps in the age cohort, ages 10–14, will join the workforce in just a few years. It's difficult to say whether Cambodia can take advantage of this demographic window of opportunity for development. Only 28% of Cambodia's 10.7 million working-age citizens had completed secondary education, only 1% had attended vocational training, and only 2% had participated in university, per the most recent labor force survey 2012. Both encouraging improved access to technical training for new labor market entrants and improving the skills and competencies of the current workforce would be crucial for Cambodia's sustainable socioeconomic development. The new TVET policy seeks to guide such projects (ADB, 2018) effectively. Technical and vocational education and training (TVET) are indispensable to socioeconomic development as they produce skilled workers and technicians, evolving and modernizing labor market needs. The National TVET policy will guide the government's skills development strategies and coordinate all parties involved. However, TVET's program curriculum is still limited to sharpening the students' skills, knowledge, and ability to find their favorite jobs. These critical issues are more related to a lack of matching the curriculum development and industrial linkages in the job market needs and demand. These critical issues are more connected to a lack of matching the curriculum development and industrial associations in the job market needs and demands.

Indeed, Technical and Vocational Education and Training (TVET) issues in Cambodia have concerned policymakers and stakeholders in recent years. Despite efforts to improve the quality and accessibility of TVET, several challenges persist. One major issue is Cambodia's limited availability of TVET institutions and programs. Many rural areas need more facilities and resources, making it difficult for students to access quality vocational education. This geographical disparity hinders the development of a skilled workforce in these areas and perpetuates the urban-rural divide. Furthermore, the perception of TVET as a second-choice option remains a challenge. Many Cambodian parents and students still prioritize traditional academic pathways over vocational training. This perception stems from a need for more awareness about the potential benefits and opportunities that TVET can offer, such as higher employability and entrepreneurship prospects. Another significant issue is the outdated curriculum and inadequate training equipment in TVET institutions. The rapid advancements in technology and industry require constant updates to ensure that students are equipped with relevant skills. However, many TVET institutions still rely on outdated curricula and lack modern training equipment, limiting the effectiveness of the education provided. Moreover, the need for qualified and experienced TVET teachers and trainers is a pressing concern. The lack of more skilled instructors hampers the delivery of high-quality vocational education. Investing in teacher training programs and attracting qualified professionals to the TVET sector is essential to address this issue. There needs to be more coordination between TVET institutions and industries. There needs to be more connection between the skills taught in TVET programs and the actual needs of the job market. Establishing stronger partnerships between TVET institutions and industries can help align the curriculum with industry requirements, ensuring graduates are job-ready. In summary, addressing the TVET issues in Cambodia requires a comprehensive approach. It is crucial to expand the availability of TVET institutions, raise awareness about the benefits of vocational education, update the curriculum and training equipment, invest in teacher training, and foster stronger industry collaborations. By tackling these challenges, Cambodia can enhance the quality and relevance of TVET, promoting economic growth and reducing unemployment rates. Therefore, this current study aims at designing the following research objectives:

- 1. To evaluate the efficiency of curriculum development for creating job opportunities from the TVET program.
- 2. To investigate the graduate student satisfaction with job opportunities throughout the training curriculum.
- 3. To examine the relationships among the curriculum quality, teacher capacity, and student learning

assessment in the TVET program.

## 2.0 Literature Review

#### **2.1 Theoretical Foundations**

While there is agreement that quality education is essential for achieving individual and national goals, there needs to be an agreement on what quality education entails. Instead, we have several approaches to defining what quality education is. A widely held belief links educational quality to student achievement on national exams and other learning evaluation assessments. According to this viewpoint, a school or education system with high student test results offers excellent education. Different approaches to quality education take an input-process-output approach (Grace, 2013). Such strategies focus on inputs such as the number of instructors, the quantity of teacher training, and the number of textbooks, as well as processes such as the amount of direct instructional time, the level of active learning, and outputs such as test scores and graduation rates. Other approaches to interpreting the meaning of quality education emphasize its aspects. Quality learners, learning environments, content, procedures, and results are the five characteristics of quality in education described by UNICEF (2000). Other approaches to understanding the meaning of quality education depend on the impacts that education is supposed to have on individual learners and society. Quality in education is synonymous with relevance in education, which refers to education that, to the greatest extent, responds to the needs of learners, their families, and communities.

There is no agreement on the meaning of the term "curriculum," as there is regarding the definition of "quality education." The term "curriculum" originally referred to a course or program of study at an educational institution. Other definitions of the term are more inclusive, referring to the formal and informal content and processes by which learners gain knowledge, develop skills, and develop appropriate attitudes and values, all of which are directed toward achieving an education program's objectives and goals (Grace, 2013). According to Doll's (1989) definition, curriculum quality refers to intentional changes in educational content and processes in schools or other educational settings. Efforts to increase educational quality must, by implication, change the curriculum. On the other hand, curriculum academics point out that curriculum development might be unplanned, but intentional curriculum change or reform is referred to as curriculum quality.

This study draws upon insights offered by career construction theory (CCT) (Savickas, 2002) to inform our understanding of how individuals settle on, enact, and utilize their resources to pursue their career goals. According to CCT, human development is characterized by adaptation to a social environment through self-construction and person-environment integration (Savickas & Porfeli, 2012). The term career in CCT denotes subjective construction that imposes personal meaning on memories, present experiences, and future aspirations by weaving them into a life theme that patterns the individual's work-life satisfaction (Savickas, 2005).

#### 2.2 Hypothesis Development

## 2.2.1 The Relationship of Curriculum Quality and Student Decision Making to Study

The curriculum quality would tend to be more student-centered and more problem-orientated. Student decisionmaking to study any specific program depends on the high-quality curriculum to meet the stakeholder expectations, especially the job market needs and demands (Harden, Sowden, & Dunn, 1984). The curriculum quality is depicted in a model organized logically rather than chronologically, emphasizing the process rather than the result or syllabus content. This attracts students' decision-making to learn in any specific program at a university or vocational training institution (Cowan & Harding, 1986). The curriculum quality could increase student engagement and facilitate learners' progress through the decision-making process stages (Gonzalez et al., 2019). Student participation in curriculum quality, combined focus on learning activities, governance, and identity, exemplifies student engagement and decision-making process breadth.

Moreover, it concludes that attention needs to be a consistent part of the student experience, not just an activity that occurs in a particular quality enhancement activity such as curriculum innovation (Carey, 2013). Understanding the possible extent of student decision-making to participate in curriculum quality and curriculum design can illustrate the challenges posed by this task. Drawing from a consumer's perspective, when any company provides high-quality services, it will lead to customers deciding to purchase or re-purchase more products or services. This study implies that when educational institutions design a high-quality curriculum, it will attract more students to join or study in any exciting program. Therefore, this study proposes the hypothesis below:

## Hypothesis 1: Curriculum quality is positively associated with student decision making to study.

2.2.2 The Relationship of Student Learning Assessment and Student Decision making to Study

The student learning assessment model is associated with decision-making studies in educators in elementary school (Johnson, Liu, & Burgess, 2017). Student learning assessment process that improves student decision-making to their learning commitment (McMillan, 2005). Student learning assessment and decision-making to study in their specific major or subject are associated (Cox et al., 2017). This study assumes that students' ability

to assess their learning activities will lead them to decide to study their favorite subjects or courses. Thus, this study proposes the hypothesis below:

*Hypothesis 2: Student Learning Assessment is positively associated with student decision making to study. 2.2.3 The Relationship of Career Development for Job Opportunity and Student Decision making to Study* 

Student decision-making study was assessed by the efficacy of a career development course (Reese & Miller, 2006). The cognitive Career Theory of Martin and Sugarman (1997) explores the mechanism of vocational training students with core self-evaluation on career development for their opportunity to improve their decision-making to study at vocational training institutions (Shen, Gu, Chen, & Wen, 2021). From this theory's perspective, when students believe in the vocational institution that designs specific career development for the job market needs, they intend to study any exciting subject or program to match their job opportunities (H. Peng & Herr, 1999). A recent study investigated 12,576 university students who chose to major in science associated with their career development to meet job expectations and market needs (Bennett, Knight, Bawa, & Dockery, 2021). Thus, the following hypothesis is proposed:

Hypothesis 3: Career development for job opportunity is positively associated with student decision making to study.

2.2.4 The Relationship of Teacher Capacity and Student Decision making to Study

One research indicates the capacity teachers have built to provide better student engagement in their study in STEM programs (Kurup, Li, Powell, & Brown, 2019). In Dutch secondary schools, teacher capacity is related to their teaching ability to gain more insight into student work and guide their learning activity. Social learning theory suggests that student's study more or choose any program or subject based on teacher capacity or teaching ability (Kippers, Wolterinck, Schildkamp, Poortman, & Visscher, 2018). Teacher capacity is a core value in promoting study programs and enhancing the curriculum's quality, attracting more students to make decisions to study. Thus, the hypothesis below is proposed:

Hypothesis 4: Teacher Capacity is positively associated with student decision making to study.

2.2.5 The Relationship of Student Decision making to Study and Satisfaction with Job Opportunities

The relationship between teacher job satisfaction and perception of decision-making opportunities to study has been explored (Brezicha, Ikoma, Park, & LeTendre, 2020). Similarly, teacher participation in decision-making to study at school and satisfaction with their job and pay also found a significant correlation (Thekedam, 2010). Student participation in decision-making studies is related to a low level of satisfaction with the job (Bogler, 2001). Students' participative decision-making in research and job satisfaction are also significantly correlated (Al Nuaimi, Chowdhury, Eleftheriou, & Katsioloudes, 2015). The relationship between overall job satisfaction levels and decision-making to study at any specific program was examined by Olcum and Titrek (2015). Self-efficacy theory suggests that student job satisfaction with their job opportunities based on their decision-making to study in a specific vocational program is essential because they spend most of their time in that program (Liu, Bellibaş, & Gümüş, 2021). Thus, this study assumes that student decision-making to study any specific vocational program with a high-quality curriculum will lead to high satisfaction with job opportunities offered by the job market needs and demands. The hypothesis below is proposed:

*Hypothesis 5: Student Decision making to Study is positively associated with Satisfaction with Job Opportunities.* As proposed in Figure 1, the conceptual framework was integrated with existing theoretical backgrounds and literature reviews. Five proposed research hypotheses were operationalized key variables to examine their relationship by surveying vocational and training institutions in Battambang province. Most of these relationships have yet to be investigated by previous research scholars. Thus, this study asserts that the relationship among research variables can exist and be validated.



Figure 1: The conceptual framework of student satisfaction with job opportunity

# 3.0 Methodology

# 3.1 Study sites

Why should Battambang province be the target study survey? This province is the second largest city in Cambodia after Phnom-Penh city. Indeed, this city has high migration to other provinces and neighborhood countries, especially Thailand. The TVET program set up in Battambang aims to reduce labor force migration and create the proper skilled laborers to meet the industrial linkages and job market needs. The research design includes an online survey using a structured questionnaire for quantitative data and participatory approaches using an unstructured questionnaire for qualitative data. The online survey was conducted between March and August 2022 among students at the TVET program in the academic year 2021-2022.

## 3.2 Sampling procedures

According to Cooper and Schindler (2014), the purposive sampling technique among non-probability sampling techniques was suitable for collecting information from students who study in the academic year 2021-2022. Indeed, a known population was developed by Yamane (1973) to determine the sample sizes for this study. The suggested sample size of 325 students should participate in the survey. A total of 450 students were asked to participate in answering the questionnaire survey. A total of 319 questionnaires were collected. However, seventy-five questionnaires had to be excluded as outliers. The outliers were deleted using the graphic method, with a residual scatter plot in the  $\pm$  3 standard deviation (Hair et al., 2019). Finally, 244 valid questionnaires were determined to be usable (a response rate of 76.49 percent) for further analyses. As suggested by Saunders, Lewis, and Thornhill (2009), given that the likely response rate for questionnaires has been found to range between 30 and 50 percent, this response rate was viewed as adequate.

## **3.3 Measurement scales**

*Curriculum Quality (CQ)* consists of 7 sub-dimensions with 21 items, developed by Spooren, Mortelmans, and Denekens (2007). *Teacher Capacity (TC)* was adopted from Estaji and Shafaghi (2018), comprising ten items. *Student Learning Assessment* has four sub-dimensions with 12 items developed by Kember, Leung, and Kwan (2002). *Curriculum Development for Job Opportunity (CDJOP)* has 3 sub-dimensions with 10 items, were validated study by Akkermans, Brenninkmeijer, Huibers, and Blonk (2013), Espinoza, González, McGinn, Castillo, and Sandoval (2019), and Ibrahim, Ab Rahman, and Yasin (2014). *Satisfaction with Job Opportunities (SJO)* consists of 4 items from Yin and Wang (2015). *Student Decision Making to Study (SDMS)* has eight items, adopted from Leathwood and Phillips (2000). This study adopts a counterbalancing question ordered with the

survey questions arranged non-sequentially to reduce the effect of self-generated validity (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). All questionnaire items were written in English, as shown in Table 1. To survey in the Cambodian context, original items were translated into Khmer following Brislin's (1980) translation-back-translation procedure to validate the meanings of measurement items. All items were measured on a five-point Likert scale (1 =strongly disagree; 5= strongly agree). The Cronbach's alpha reliability for this study is reported in Table 1.

## 4.0 Results

The data analysis of this manuscript is conducted in the following three primary stages to test the proposed research hypotheses. Firstly, Exploratory Factor Analysis (EFA) with SPSS 25 performs to identify the underlying research variables of "Curriculum Quality," "Student Learning Assessment," "Curriculum Development for Job," "Student Decision Making to Study," "Satisfaction with Job Opportunities, and "Teacher Capacity." Secondly, Confirmatory Factor Analysis (CFA) tests how well the measured variables represented the constructs and ensures the measurement model's goodness of fit. Finally, the relationships among "Curriculum Quality," "Student Learning Assessment," "Curriculum Development for Job," "Student Decision Making to Study," "Satisfaction with Job Opportunities, and "Teacher Capacity" were empirically tested using the Structural Equation Modeling (SEM) technique with AMOS 23. The purpose of performing these three stages of data analysis is to double-check on reliability and validity of research variables and the meanings of questionnaire items.

## 4.1 Exploratory Factor Analysis and Reliability Test

Several purification processes for data analysis, including factor analysis and internal consistency analysis with reliability test (Cronbach's Alpha:  $\alpha$ ), are tested in this study. Exploratory factor analysis uses the principal component method with VARIMAX rotation to employ factor analysis and reliability tests to verify the research variables' dimensionality and reliability, as proposed in Figure 1. Factor analysis is first used to identify the dimensionality of each research item. Theoretically, this section indicates the threshold of the factor loading score of each item. Item-to-total correlation and coefficient Alpha ( $\alpha$ ) are accessed to examine the internal consistency and reliability of the primary research construct. According to Hair et al. (2019), the following main key criterion must meet the threshold values, such as:

- The Factor Loading (FL) of each research item should be greater than 0.60,
- Eigenvalue should be greater than 1,
- The Cumulative percentage should be higher than 0.60,
- Kaiser-Meyer-Olkin (KMO) should be higher than 0.50,
- Item-total-correlation should be greater than 0.50, and
- coefficient Alpha ( $\alpha$ ) should be higher than 0.60 or 0.70.

The cutoff values of the rules of thumb, as recommended by Hair et al. (2019) also adopted to evaluate the factor analysis and reliability test results indicated in Table 2. However, the results show that some research items have been deleted because it has not met the threshold values. Indeed, some research items contained factor loading value lower than criterion 0.60, thus also deleted. Most importantly, the rest of the research items of the formal reliability test were adopted to double-confirm with Confirmatory Factor Analysis (CFA) and test the research hypotheses with Structural Equation Modeling (SEM) by performing AMOS 23 software.

The Factor Analysis and Reliability Test results indicate that most of the research variables and subdimension have met the cutoff value of rules of thumb as recommended by Hair et al. (2019). However, few of them have low reliability regarding their item-total correlation lower than 0.50 and Alpha <0.60 (i.e., *"Interaction"* is a sub-dimension of Student Learning Assessment). Thus, for all research items shown in Table 1, this study proceeds with the CFA and SEM data analysis.

Table 1-Fac	tor Analysis and Reliabilit	y Test					
Code	Descriptions		Fa		Reliability Test		
		Factor Loading (FL)	КМО	Eigenvalue	Cumulative %	Item-total correlation	Alph
Curriculum	Quality						_
Course obje	ectives						
COB2 COB1	Quality of objectives Clarity of objectives	0.880 0.880	0.50	1.548	77.394	0.548 0.548	0.708

Code	Descriptions		Fa	ctor Analysis		Reliability	/ Test
		Factor Loading (FL)	КМО	Eigenvalue	Cumulative %	Item-total correlation	Alpha
Subject matt	er						-
SUM3	Build-up of the subject matter	0.866	0.710	2.165	72.153	0.683	0.807
SUM1 SUM2	Value of subject matter Attractiveness of	0.847 0.834				0.650 0.630	
	subject matter						
Course struc	eture						
COS3	Linking up with social reality and future	0.878	0.726	2.271	75.716	0.717	0.840
COS2	Harmony with other courses in the program	0.873				0.707	
COS1	Linking up with advance knowledge	0.859				0.685	
Teaching ac	tivities						
TEC1	Presentation skills.	0.869	0.723	2.238	74.593	0.697	0.830
TEC2	Harmony between objectives and organization of the course.	0.864				0.687	
TEC3	Harmony between organization of the course and learning process of the students.	0.858				0.679	
Course mate	rials						
COM1	Contribution to understanding the	0.848	0.645	1.911	63.702	0.598	0.713
COM3	subject matter. Link–up with organization of the course	0.819				0.549	
COM2	Contribution to preparing for examination(s)	0.722				0.445	
Coaching		0.070	0.707	2 201	76.040	0.710	0.040
COAT	during the learning process	0.879	0.727	2.281	/6.048	0.718	0.842
COA2	Contribution of the teacher to preparing for examination(s)	0.878				0.716	
COA3	Stimulation of the teacher in order to learn to be self-responsible	0.859				0.686	
Evaluation	•						
EVA4	Formative examination(s)	0.895	0.824	2.891	72.284	0.795	0.872
EVA1	Transparency of the examination(s)	0.851				0.727	
EVA2	Authenticity of the examination(s)	0.831				0.698	
EVA3	Content validity of the examination(s)	0.822				0.685	

Code	Descriptions		Fa	ctor Analysis		Reliability	/ Test
		Factor	KMO	Eigenvalue	Cumulative %	Item-total	Alpha
		Loading				correlation	
		(FL)					_
Teacher Cap		0.054	0.000	2 5 4 0	<pre></pre>	0.545	0.045
TECAI	Teacher's skill in	0.8/4	0.800	2.740	68.505	0.745	0.845
TECA2	planning for teaching.	0.956				0.721	
TECA3	teacher's use of the	0.856				0.721	
	materials						
TECA2	Teacher's skill in	0.837				0.685	
TLCAL	assessment and	0.057				0.005	
	evaluation student						
	works.						
TECA4	Teacher's ability to	0.736				0.568	
	recognize and provide						
	for individual						
	differences						
Student Lean	ming Assessment						
Learning Ou	utcomes						
SLALO2	The teacher member's	0.916	0.50	1.677	83.861	0.677	0.808
	method of teaching has						
	helped my						
ST AT O1	Understanding.	0.016				0.677	
SLALOI	subject matter taught by	0.910				0.077	
	the teachers						
Interaction	the teachers.						
SLAI2	The teachers encourage	0.844	0.50	1.426	71.306	0.426	0.598
~	d active participation in	0.011	0.00	10	, 110 0 0	020	01020
	class.						
SLAI1	The teachers gave	0.844				0.426	
	students opportunities s						
	to ask questions and						
	discuss ideas						
Individual H	elps			4 (20			
SLAIH2	Assistance was	0.905	0.50	1.638	81.884	0.638	0.779
	available from the						
	teachers when						
SI AIH1	The teachers provided	0.905				0.638	
SLAIIII	appropriate help for	0.905				0.038	
	students with learning						
	problems.						
Organization	n and presentation						
SLAOP2	The teachers presented	0.863	0.50	1.491	74.531	0.491	0.658
	the subject material						
	clearly.						
SLAOP1	The teacher's teaching	0.863				0.491	
	was well-organized						
Motivation							
SLAM2	The teacher 's teaching	0.848	0.50	1.437	71.863	0.437	0.608
	stimulated my interest						
CT ANAI	in the subject and skills.	0.949				0.427	
SLAMI	the significance of which	0.848				0.43/	
	was taught						
	was taugiit.						

Code	Descriptions		Fa	ctor Analysis		Reliability	7 Test
	1	Factor Loading	КМО	Eigenvalue	Cumulative %	Item-total correlation	Alpha
E dh h		(FL)					_
Feedback	The feedback from the	0.027	0.50	1 717	05 044	0.717	0.925
SLAF2	The leedback from the	0.927	0.50	1./1/	83.844	0.717	0.835
	helpful and						
	and constructive						
SI AF1	The teachers gave me	0.027				0.717	
SLAPT	regular feedback on my	0.927				0.717	
	progress						
Curriculum	Development for Job						
Curriculum	Reflection						
CDJOCR1	Attractive content and	0.879	0.621	1.955	65.172	0.662	0.729
	ability to stimulate						
	students' interest.						
CDJOCR3	Relation of training to	0.815				0.542	
	practical work.						
CDJOCR2	Ability of training	0.719				0.446	
	content to meet job						
	market requirements.						
Work Explor	ration						
CDJOWE4	The program gave me a	0.879	0.812	2.818	70.454	0.763	0.860
	training that allow me						
	to obtain the academic						
	degree and professional						
CDIONES	title without problems.	0.050				0.716	
CDJOWE2	I know how to search	0.850				0.716	
	for developments in my						
CDIOWE?	area of work.	0.943				0.700	
CDJOWE3	I am able to explore my	0.842				0.709	
	possibilities on the						
CDIOWE1	I know how to find out	0 783				0.631	
CDJOWEI	what my options are for	0.785				0.051	
	becoming further						
	educated						
Career Cont	rol						
CDJOCC2	I can make clear career	0.911	0.729	2.374	79.130	0.787	0.868
	plans						
CDJOCC1	I know what I want to	0.880				0.733	
	have achieved in my						
	career a year from now.						
CDJOCC3	I can create a layout for	0.877				0.726	
	what I want to achieve						
	in my career.						
Satisfaction	with Job Opportunities	0.007	0.020	2.070	74.472	0.704	0.007
SJOI	Overall, I am satisfied	0.887	0.820	2.979	74.473	0.784	0.885
	with the quality of the						
	mstitutional courses						
	a good ich						
\$102	a good joo	0.881				0 773	
5302	recommend the	0.001				0.775	
	institutional courses to						
	others for seeking a job						
	opportunity.						

Code	Descriptions		Fa	ctor Analysis		Reliability	Test
		Factor	KMO	Eigenvalue	Cumulative %	Item-total	Alpha
		Loading				correlation	
		(FL)					_
SJO3	Overall, institutional	0.853				0.737	
	learning is the best						
	learning experience I						
	have ever had.						
SJO4	Overall, I enjoy my	0.830				0.704	
	institutional learning						
	experience in career						
	development						
	opportunity.						
Student Deci	sion Making to Study						
SDMS3	I am uncertain about	0.929	0.849	3.379	84.467	0.870	0.939
	my future plans so I am						
	doing a degree to keep						
	my options open.						
SDMS2	I am more interested in	0.920				0.855	
	getting the qualification						
	than learning about the						
	subject.	0.010				0.052	
SDMS4	I hope to increase my	0.918				0.853	
	self-confidence by						
	doing this course.	0.010				0.020	
SDMS1	My main reason for	0.910				0.839	
	doing this course is to						
	get a good or better job,						
	or promotion						

*Note:* All the above research items are not included; some of the items have been deleted due to FL<0.60.

Table 2-Correlation Matrix (n=244)

Ν	Variables	Mean	Std. D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	СОВ	4.02	0.74	1.00	.725**	.713	.724**	.685**	.527**	.504**	.533**	.444**	.487**	.457**	.400**	.479**	.437**	.436**	.482**	.504**	.517	.442**
2	SUM	3.91	0.72		1.00	.784**	.791	.739	.518	.508**	.508**	.391**	.417**	.405**	.396**	.441**	.384**	.361**	.373**	.438**	.441**	.405**
3	COS	4.09	0.73			1.00	.827**	.725**	.504**	.469**	.468**	.372**	.463**	.404**	.348**	.427**	.341**	.380**	.369**	.487**	.468**	.408**
4	TEC	3.98	0.75				1.00	.780**	.512 <sup>**</sup>	.491**	.522**	.425**	.483**	.477**	.365**	.456**	.388**	.383**	.438**	.477**	.504**	.433**
5	СОМ	3.84	0.71					1.00	.507**	.460**	.495**	.425**	.467**	.409**	.360**	.401**	.356**	.417**	.387**	.458**	.533**	.463**
6	COA	3.86	0.71						1.00	.832**	.820**	.683**	.670**	.620**	.542**	.640**	.573**	.494**	.549**	.563**	.578 <sup>™</sup>	.571**
7	EVA	3.79	0.71							1.00	.842**	.669**	.647**	.615	.548**	.615**	.611**	.525**	.563**	.538**	.567**	.521**
8	TEA	3.88	0.71								1.00	.745**	.714**	.664**	.563**	.634**	.631**	.550**	.615**	.578**	.606**	.563**
9	SLALO	3.84	0.71									1.00	.719**	.634**	.557**	.559**	.532**	.462**	.567**	.543**	.557**	.519**
10	SLAI	3.72	0.75										1.00	.775**	.693**	.683**	.638**	.522**	.581**	.563**	.622**	.538**
11	SLAIH	3.78	0.81											1.00	.708**	.699**	.631**	.505**	.592**	.551**	.598**	.563**
12	SLAOP	3.65	0.77												1.00	.658**	.564**	.491**	.472**	.458**	.455**	.409**
13	SLAM	3.61	0.74													1.00	.761**	.509**	.539**	.482**	.513 <sup>™</sup>	.482**
14	SLAF	3.62	0.74														1.00	.476**	.536**	.467**	.492**	.409**
15	CDJOCR	3.46	0.69															1.00	.763**	.718**	.562**	.521**
16	CDJOWE	3.67	0.74																1.00	.791**	.604**	.570**
17	CDJOCC	3.72	0.72																	1.00	.622**	.609**
18	SJO	3.80	0.76																		1.00	.826**
19	SDMS	3.83	0.81																			1.00
**.(	Correlation i	s signif	icant at	the 0.	01 leve	l (2-tail	ed). Pe	arson	Correla	tion Me	thods											

A Pearson correlation coefficient was calculated for the relationship among research variables. The results indicate a strong positive correlation and significant linear relationship between the two variables.

*Note:* COB= Course objectives; SUM= Subject matter; COS=Course structure; TEC=Teaching activities; COM=Course materials; COA=Coaching; EVA=Evaluation; TEA=Teacher Capacity; SLALO=Learning Outcomes; SLAI=Interaction; SLAIH=Individual Helps; SLAOP=Organization and presentation; SLAM=Motivation; SLAF= Feedback; CDJOCR=Curriculum Reflection; CDJOWE=Work Exploration; CDJOCC=Career Control; SJO=Satisfaction with Job Opportunities; SDMS=Student Decision Making to Study

#### 4.2 Confirmatory Factor Analysis (CFA)

The construct validity is assessed using the guidelines of Anderson and Gerbing (1988). First, the exploratory factor analysis for all the items resulted in factor solutions, as expected theoretically. The Cronbach Alpha coefficients for each factor were greater than 0.60. Second, we used confirmatory factor analyses (CFA) to assess the convergent validity of the measures.

Confirmatory factor analysis consists of main parts for this manuscript, firstly related to the "First Order-Factor Model" and secondly related to the "Second Order-Factor Model" (Koufteros, Babbar, & Kaighobadi, 2009). This study adopted the first-order factor model to examine the research construct individually, as shown in Table 4. The threshold values of CFA and SEM as shown in Table 3 were adopted to evaluate the results of CFA and SEM (i.e., Table 4). The results of the First-order factor model indicated that all the threshold values are very satisfied (i.e., upon availability to request). Then, the second-order factor model was also adopted to examine the fitness of the overall model. All loadings exceed 0.60, and each indicator t-value exceeds 1.96 (p < 0.05), thus satisfying the CFA criteria. Table 5 and Figure 2 show that the overall goodness-of-fit assessment showed that  $\chi^2/d.f = 1.175$ , GFI= 0.917, AGFI = 0.883, NFI = 0.950, CFI = 0.992, RMSEA = 0.027. The results indicated that the research model could be presented as a good fit with acceptable convergent validity. Since all values exceeded the established cutoff criteria, this study proceeds with hypothesis testing using structural equation modeling (SEM). Indeed, the Threshold of CFA and SEM was adopted to evaluate the results of this study, as shown in Table 5.

Model Fit Statistics	Rule of Thumbs
 $\chi^2/D.F$	< 3
GFI	$\geq 0.90$
AGFI	$\geq 0.90$
NFI	$\geq 0.90$
CFI	$\geq 0.90$
 RMSEA	< 0.08
a . 1	

Table-3. The Threshold of CFA and SEM

Sources: Anderson and Gerbing (1988); Hair, Black, Babin, and Anderson (2014); Jöreskog, Olsson, and Wallentin (2016); Jöreskog and Sörbom (1993); Kline (2015), and Hooper, Coughlan, and Mullen (2008).

Note:

Chi-square=  $\chi^2$ D.F= Degree of Freedom GFI= Goodness of Fit AGFI=Adjusted Goodness of Fit NFI=Normed Fit Index CFI=Comparative Fit Index RMSEA =Root Mean Square Error of Approximation

The Average Variance Extracted (AVE) and Composite Reliability coefficients (CR) were applied to relate the quality of a measure. To avoid misconceptions, it is needed to appropriately understand the equations of the AVE and CR, as well as their association to the definition of validity and reliability. In this manuscript, we explain, using simulated one-factor models, how the number of items and the homogeneity of factor loadings might influence the AVE and CR results.

$$AVE = \frac{\sum_{i=1}^{n} \lambda_i^2}{n}$$
(1)  
$$CR = \frac{(\sum_{i=1}^{n} \lambda_i)^2}{(\sum_{i=1}^{n} \lambda_i)^2 + (\sum_{i=1}^{n} \delta_i)}$$
(2)

Where:  $\lambda$  (Lamda) represents the standardized factor loading and *i* is the number of items (1) and  $\delta$  (Delta) represents error variance terms (2) while  $\delta = 1 - \lambda_1^2$ .

According Fornell and Larcker (1981) and Peterson and Kim (2013), AVE must exceed 0.50, and CR must be exceed 0.70, respectively. Hair et al. (2014) recommend that t-value must be greater than 1.96 and p-value<0.05. All other criterion shown in Table 4 also need to evaluation the results of CFA and SEM.

# Table 4- The Results of Overall CFA

Indicators		Research Constructs	Standardized	t-value	AVE	CR
		~	Loading			
COBMean	←	Curriculum Quality	0.833	A	0.632	0.92
SUMMean	←		0.873***	17.11		
COSMean	←		0.861***	16.626		
TECMean	←		$0.878^{***}$	16.989		
COMMean	←		0.836***	15.813		
COAMean	←		0.636***	10.864		
EVAMean	←		0.592***	9.952		
SLALOMean	÷	Student Learning	$0.849^{***}$	А	0.642	0.91
		Assessment				
SLAIMean	←		$0.869^{***}$	14.352		
SLAIHMean	←		0.863***	12.776		
SLAOPMean	←		0.711***	10.933		
SLAMMean	←		0.782***	11.573		
SLAFMean	←		0.715***	10.619		
	←	Curriculum Development	0.826***	Δ	0 757	0.90
CDJOCRMean		for Job	0.020	11	0.757	0.70
CDIOWFMean	←	101 900	0.902***	17 531		
CDIOCCMean	←		0.902	16 986		
CDJOCCIVIcali	←	Student Decision Making	0.806***	10.980	0 780	0.04
SDMS1	•	to Study	0.890	A	0.709	0.94
SDMS2	←	5	$0.887^{***}$	21.067		
SDMS3	←		0.900***	21 758		
SDMS4	←		0.890***	19.162		
551151	←	Satisfaction with Job	0.793***	A	0.615	0.86
SJO1		Opportunities	0.195	11	0.010	0.00
\$102	←	Opportunities	0 737***	16 807		
SIO3	←		0.737	12 052		
5104	Ļ		0.783	12.955		
		T 1 C	0.021	14.903	0 ( 47	0.05
TECAL	-	Teacher Capacity	0.838	A 15 241	0.04 /	0.85
TECA2	÷		0.812	15.241		
TECA3	Ļ		0.762	13.944		
Goodness-of-Fit Inde	Х					
$v^{4}(1) F = 1.175$						

 $\chi^2$ /D.F = 1.175 GFI=0.917

AGFI=0.883

NFI = 0.950

CFI = 0.992

RMSEA = 0.027

Note: A=parameter regression weight was fixed at 1.000 and significant level of p-value<0.05 and t-value>1.96.  $^{***}p<0.001$ 



## 4.3 Structural Equation Modeling (SEM)

To test the hypotheses, this study applies Structural Equation Modeling (SEM) with the likelihood estimation method. The research variables have remained after CFA, as shown in Table 5, was adopted to proceed with SEM. The second-order factor model is adopted to test the overall research variables (Anderson & Gerbing, 1988). The results show that goodness-of-fit measurements were acceptable (i.e., GFI=0.890, AGFI=0.849, NFI =0.924, CFI =0.966, and RMSEA=0.055) (see Table 5 and Figure 3) indicate that the proposed model was satisfactory with goodness-of-fit assessment (Hair et al., 2019).

The CFA, which used the same variables illustrated in Table 4, was run before proceeding with the SEM to test the likelihood estimation method. The results of Table 5 and Figure 3 show that good-ness-of-fit measurements were acceptable (i.e., GFI = 0.917, AGFI = 0.883, NFI = 0.950, CFI = 0.992, and RMSEA =0.027); this indicates that the proposed model is satisfactory with goodness-of-fit assessment. The SEM model reveals the relationship between "Curriculum Quality" and "Student Decision-making to Study" does have a significant impact, which is  $\beta = 0.133^{**}$ , p =0.045 (p<0.05), and t-value =2.004 (t-value>1.96). Thus, Hypothesis 1 is accepted; The relationship of "Student Learning Assessment" has a positive and significant impact on "Student Decision making to Study," which is  $\beta = 0.178^{**}$ , p = 0.035 < 0.05, and t-value = 2.112>1.96, which is accepted Hypothesis 2; The relationship of "Career Development for Job Opportunity" has a positive and significant impact on "Student Decision making to Study," which is  $\beta = 0.462^{***}$ , p = 0.000 < 0.001, and t-value = 5.342>1.96, which is accepted Hypothesis 3; The relationship of "Teacher Capacity" has a positive and significant impact on "Student Decision making to Study," which is  $\beta = 0.206^{***}$ , p=0.000 < 0.001, and t-value = 3.936, which is accepted Hypothesis 4; The relationship of "Student Decision making to Study" has a positive and significant impact on "Satisfaction with Job Opportunities," which is  $\beta = 0.871^{***}$ , p =0.000< 0.001, and tvalue = 14.882, which is accepted Hypothesis 5. The SEM model indicates that the relationship of "Student Decision making to Study" played a vital role in enhancing "Satisfaction with Job Opportunities." because this relationship has  $\beta = 0.871$  (87.10%) with the highest and strongest significant impact. Indeed, the proposed

research all proposed six research hypotheses (H1-H5) are well-confirmed and supported.
Table 5-The Results of Structural Equation Modeling (SEM)

Constructs		cators	Standardized	t value	n value
Constructs	mu	cators	Coefficient (β)	t-value	p-value
Curriculum Quality	$\rightarrow$	COBMean	0.814	А	***
	$\rightarrow$	SUMMean	0.872	16.72	***
	$\rightarrow$	COSMean	0.892	17.361	***
	$\rightarrow$	TECMean	0.917	17.994	***
	$\rightarrow$	COMMean	0.841	15.718	***
	$\rightarrow$	COAMean	0.264	6.281	***
	$\rightarrow$	EVAMean	0.147	4.053	***
Student Learning Assessment	<b>→</b>	SLALOMean	0.556	А	***
	$\rightarrow$	SLAIMean	0.873	11.259	***
	$\rightarrow$	SLAIHMean	0.882	10.178	***
	$\rightarrow$	SLAOPMean	0.788	9.574	***
	$\rightarrow$	SLAMMean	0.791	9.558	***
	$\rightarrow$	SLAFMean	0.718	8.977	***
Curriculum Development for Job	<b>→</b>	CDJOCRMean	0.834	А	***
	$\rightarrow$	CDJOWEMean	0.903	17.963	***
	$\rightarrow$	CDJOCCMean	0.879	17.125	***
Student Decision Making to Study	<b>→</b>	SDMS1	0.881	А	***
2	$\rightarrow$	SDMS2	0.864	19.03	***
	$\rightarrow$	SDMS3	0.874	19.392	***
	$\rightarrow$	SDMS4	0.812	16.614	***
Satisfaction with Job Opportunities	<b>→</b>	SJO1	0.871	А	***
	$\rightarrow$	SJO2	0.837	15.931	***
	$\rightarrow$	SJO3	0.734	13.347	***
Path Relationships H1: Curriculum Quality → Stu to Study	udent	Decision making	0.133	2.004	0.045
H2: Student Learning Assessm Decision making to Study	ent –	Student	0.178	2.112	0.035
H3: Career Development for Jo Student Decision making t	ob Op	portunity <b>→</b> dv	0.462	5.342	***
H4: Teacher Capacity → Stude	ent D	ecision to Study	0.206	3.936	***
H5: Student Decision mak with Job Opportunities	ing	to Study $\rightarrow$ Satisfaction	0.871	14.882	***
Goodness-of-Fit Index					
$\gamma^2/D F = 1.745$					

GFI=0.890 AGFI=0.849 NFI = 0.924 CFI = 0.966 RMSEA = 0.055

*Note:* A=parameter regression weight was fixed at 1.000 and significant level of p-value<0.05 and t-value>1.96. \*\*\*p<0.001.



## 4.4 t-test

An independent-sample t-test was calculated to determine whether the two institutions (i.e., Battambang Institute of Technology—BIT, National Battambang Institute of Technology—NBIT) had a total of 244. This study compares these two institutions with other research variables (i.e., Age, Gender, Income, Occupation, Study Levels, and key-dependent and independent variables) to identify whether there are significant differences. The results indication that "Study levels: (C1, C2, & C3)" was found significant difference with t-value = -4.816, p=0.000, F=15.297, and d.f=242. The BIT has Mean=1.8209, SD=0.883 and n=134, and NVIB has Mean = 2.4364, SD=1.113, and n=110. Also, Age—i.e., t(242) = -11.144; p=0.000), Incomes—i.e., t(124) = -5.771; p=0.000), and Occupations—i.e., t(242) = -12.194); p=0.000) are found significant differences for this study. For among key research variables, two sub-dimensions of Curriculum Quality—i.e., TEC—t(242) = 2.017, p=0.045, and COA—t (242) = 2.921, p=0.004, Teacher Capacity—i.e., TEA—t(242) = 3.110, p=0.002, Satisfaction with Job Opportunities—i.e., SJO—t(242) = 2.906, p=0.004 and Student Decision Making to Study—i.e., SDM—t(242) = 2.317, p=0.021, which have found significant differences. Therefore, this study assumes that these two vocational training institutions play different roles in terms of designing "Curriculum Quality," improving "Teacher Capacity," enhancing students' "Satisfaction with Job Opportunities," and influencing "Student Decision making to study."

## 5.0 Discussions

The result of SEM exploration tests the hypothesis of students' satisfaction with job opportunities to join the TVET program in Cambodia; the discussion is divided into five sections. First, the survey results indicate that "Curriculum Quality" positively contributes to "Student Decision making to Study." The specific type of vocational and training program, Curriculum Quality, offers the necessary technical adequacy for making decisions with students to study (Shinn, 1988). The quality of the curriculum assumes the presence of a general

curriculum that describes the formal study contents for effectively educating all students (Michael L, Dana, & Martin, 2001). Indeed, another survey suggests that 11 middle school teachers decided to join the school curriculum based on maximizing the potential of prescribed curriculum quality and ultimately making decisions that will more effectively meet individual participant needs (Siuty, Leko, & Knackstedt, 2016). Consistent with previous research findings, the study assumes that "Curriculum Quality" plays a significant role in strengthening their decision-making to study with a specific program or potential subjects that can meet the job market. This study depicts that expectancy theory states the strength of the tendency for an individual to achieve a particular experience that exceeds the expected outcomes (Hackman & Porter, 1968). Up with this theoretical foundation, when students' decision-making to study with any specific program, and they might receive high experience from the expectation related to the quality of the curriculum offered by educational institutions.

Second, this research confirms the "Student Learning Assessment" significantly impacts "Student Decision making to Study." Educational program evaluation is conceptualized as students' attitudes toward targeted educational programs (Z. Peng, Lawley, & Perry, 2000). The elements that influence the educational program evaluation are a wide selection of courses (Qureshi, 1995), their quality, international and local recognition of the degree (Turner, 1998), availability of systems and learning facilities, entry requirements (Bourke, 2000), costs and availability of financial support (María Cubillo, Sánchez, & Cerviño, 2006). Hooley and Lynch (1981) observe that the program's suitability is the most critical factor since students will accept any level of the other specific factors. In this sense, prospective students will decide to study based on their learning assessment suitability (María Cubillo et al., 2006). Recent research reveals that impression-based student decision-making questions the reliability and validity of competency-based learning assessment is more associated with students' ability to assess the specific school materials or tools for performing their job tasks or class assignments while studying in the TVET program. When the TVET provides more experimental materials for students, they can apply them to accomplish their projects effectively. These key factors can influence students to study any specific program at the TVET institution.

Third, this research reveals that "Career Development for Job Opportunity" significantly contributes to "Student Decision-making to Study" with the level of the TVET program. Because the current education and training policy discourses in TVET often focus uncritically upon notions of markets driven by choices made by students, the career decisions made by the young group of students who are those 'customers' have become central to both the planning and the operation of those policies. Yet there is almost no attention in either policy or research literature to how those 'customers' of education and training provisions make career decisions to develop job opportunities with the industrial linkages (Hodkinson & Sparkes, 1997). The specific study found that opportunities for work upon graduation and employment opportunities when studying the matter for specific educational programs (Nilsson & Ripmeester, 2016). This current study assumes that curriculum development of the TVET links or creates more careers for the student to meet the industrial demand or job market needs. Then, the students can decide to study at any specific vocational and training program level. Social learning theory does address the interaction of social and cultural factors on decision-making, which acknowledges that they become enmeshed in an individual's identity as life develops and experiences are accumulated (Hodkinson & Sparkes, 1997). However, social learning experiences have been seen as external influences on their decisionmaking. In contrast, our research suggests they are an integral part of the decision-making process to study in the TVET program based on their experience in learning assessment. The results of SEM indicate that the "career development for job opportunities" factor significantly in promoting the students' ability to effectively decide to study in the TVET program, which is  $\beta$ =0.46 (or 46%), respectively.

Fourth, "Teacher Capacity" positively impacts "Student Decision making to Study" in the TVET program. According to Stephen, Robbins, and Coulter (2018) in social cognitive theory, individual students are likely to be impacted by teachers or the faculties with high capacities to transfer knowledge, skills, and abilities effectively when they believe in the teacher's capability of performing a task. Teachers' capacity shapes professional skills in academic communities, training sessions, and interactions with students, consultants, and principals (Datnow & Hubbard, 2016). Thus, teachers' capacity plays a critical role in attracting students to decide to study.

Fifth, this research confirms that "Student Decision Making to Study" is an essential factor motivating their "Satisfaction with Job Opportunity." The results of SEM show that this relationship has the most robust significant coefficient,  $\beta = 0.87$  (87%), and it seems to identify that the "Student Decision Making to Study" factor in the TVET influences their satisfaction with job opportunities, respectively. Consistently, findings suggest that individuals with self-regulatory decision-making were more likely to choose study majors and jobs of a good fit, experience satisfaction from their job decisions or opportunities, and choose careers relevant to their study majors (Eun, Sohn, & Lee, 2013). Another recent research has shown that when principals or teachers provide students with opportunities to participate in meaningful decision-making while studying, it leads to a greater sense of ownership and commitment to their satisfaction with job opportunities (Brezicha et al., 2020). Career construction theory suggests that student decision-making is related to self-efficacy, which is essential in

shaping the process of career construction with job opportunities (Savickas, 2002). This is because it helps individuals to develop and implement their vocational self-concept in occupational roles. Individuals with higher as opposed to lower decision-making self-efficacy can better prepare themselves for their careers and persist in their career opportunities pursuit (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

Technical and Vocational Education and Training (TVET) programs are vital in preparing students for the job market. In Cambodia, students' satisfaction with job opportunities available after completing their TVET education is paramount. This article examines the key impacts of student satisfaction with job opportunities in TVET in Cambodia and highlights the significance of bridging the gap between education and employment.

1. Enhanced Employability:

When satisfied with job opportunities in TVET, students are more motivated to acquire relevant skills and knowledge. This satisfaction positively impacts their employability, making them desirable candidates for employers. As TVET programs align closely with industry demands, satisfied students possess practical skills that meet the job market's needs, increasing their chances of finding suitable employment.

2. Reduced Youth Unemployment:

Like many other developing countries, Cambodia faces the challenge of high youth unemployment rates. By focusing on student satisfaction with job opportunities in TVET, the government can address this issue effectively. When students perceive TVET programs as valuable and relevant, they are more likely to pursue vocational education, which equips them with the skills needed to secure employment. As a result, the youth unemployment rate decreases, contributing to economic growth and stability.

3. Increased Economic Growth:

TVET programs provide students with specialized skills, enabling them to contribute to the country's economic growth. When students are satisfied with job opportunities in TVET, they are more likely to apply their acquired skills in the workforce. This leads to increased productivity, innovation, and efficiency in various industries. As a result, the overall economic growth of Cambodia is positively influenced by the satisfaction of TVET students with job prospects.

4. Enhanced Social Mobility:

TVET education plays a crucial role in promoting social mobility among Cambodian students. TVET programs empower individuals from disadvantaged backgrounds to secure better job opportunities by providing access to practical skills and knowledge. When students perceive TVET as a viable pathway to improve their socio-economic status, they are more likely to enroll in vocational education. This, in turn, helps break the cycle of poverty and inequality, contributing to a more inclusive society.

5. Strengthened Industry-education Collaboration:

Student satisfaction with job opportunities in TVET encourages stronger collaboration between the education sector and industries. When students perceive that TVET programs successfully bridge the gap between education and employment, enterprises become more willing to engage in partnerships. This collaboration allows educational institutions to align curricula with industry demands, ensuring graduates possess the skills and competencies employers require. Ultimately, this leads to a more efficient and effective workforce, benefiting students and industries.

#### **6.0** Conclusions

Based on the research objectives and conceptual framework as proposed above, the t-test analysis technique responds to identify the perceptions of significant differences between BIT and NVIB, which play different roles in terms of designing "Curriculum Quality," improving "Teacher Capacity," enhancing students' "Satisfaction with Job Opportunities," and influencing "Student Decision making to study." Indeed, the results of SEM indicate that all research hypotheses are fully supported and validated by this study. Also, the research finding found that three main research variables of "Career Development for Job Opportunity," "Student Decision making to Study," and "Satisfaction with Job Opportunities." play a crucial role in vocational and training institutions in both BIT and NVIB. Besides, this study suggests that the following research scholars might need to explore industrial linkage with vocational and training institutions in the re-innovation curriculum to improve or match the job market needs and demands. Most importantly, the results of SEM argue that a conceptual model to explore critical antecedents of students' satisfaction with opportunities in the TVET program is explained by various theoretical backgrounds, including social learning theory, expectancy theory, career construction theory, cognitive career theory, and social cognitive theory. Overall, students' satisfaction with job opportunities in TVET is vital for the success of technical and vocational education in Cambodia. It influences employability, reduces youth unemployment, fosters economic growth, promotes social mobility, and strengthens industryeducation collaboration. By prioritizing student satisfaction, Cambodia can ensure that TVET programs remain relevant, responsive, and impactful, effectively preparing students for a successful transition into the job market.

#### References

- ADB. (2018). Cambodia's new Technical and Vocational Education and Training Policy. Retrieved from http://dx.doi.org/10.22617/BRF189240
- Akkermans, J., Brenninkmeijer, V., Huibers, M., & Blonk, R. W. (2013). Competencies for the contemporary career: Development and preliminary validation of the career competencies questionnaire. *Journal of Career Development*, 40(3), 245-267.
- Al Nuaimi, S., Chowdhury, H., Eleftheriou, K., & Katsioloudes, M. I. (2015). Participative decision-making and job satisfaction for teachers in the UAE. *International Journal of Educational Management*.
- Alsubaie, M. A. (2016). Curriculum development: Teacher involvement in curriculum development. *Journal of Education and Practice*, 7(9), 106-107.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411-423.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child development*, 72(1), 187-206.
- Bennett, D., Knight, E., Bawa, S., & Dockery, A. M. (2021). Understanding the career decision making of university students enrolled in STEM disciplines. *Australian Journal of Career Development*, 30(2), 95-105.
- Bogler, R. (2001). The influence of leadership style on teacher job satisfaction. *Educational administration quarterly*, 37(5), 662-683.
- Bourke, A. (2000). A model of the determinants of international trade in higher education. *Service Industries Journal*, 20(1), 110-138.
- Brezicha, K. F., Ikoma, S., Park, H., & LeTendre, G. K. (2020). The ownership perception gap: exploring teacher job satisfaction and its relationship to teachers' and principals' perception of decision-making opportunities. *International Journal of Leadership in Education*, 23(4), 428-456. doi:10.1080/13603124.2018.1562098
- Brislin, R. W. (1980). Handbook of Crosscultural Psychology. In H. C. Triandis & J. W. Berry (Eds.), *Translation and content analysis of oral and written material* (pp. 389-444). Boston, MA: Allyn & Bacon.
- Burden, S., Topping, A. E., & O'Halloran, C. (2018). Mentor judgements and decision-making in the assessment of student nurse competence in practice: A mixed-methods study. *Journal of Advanced Nursing*, 74(5), 1078-1089.
- Carey, P. (2013). Student as co-producer in a marketised higher education system: a case study of students' experience of participation in curriculum design. *Innovations in Education and Teaching International*, 50(3), 250-260. doi:10.1080/14703297.2013.796714
- Chet, C., Sok, S., & Sou, V. (2022). The Antecedents and Consequences of Study Commitment to Online Learning at Higher Education Institutions (HEIs) in Cambodia. *Sustainability*, 14(6), 1-43. Retrieved from https://www.mdpi.com/2071-1050/14/6/3184
- Cooper, D. R., & Schindler, P. S. (2014). Business research methods (12th ed.). New York: McGraw Hil.
- Cowan, J., & Harding, A. G. (1986). A logical model for curriculum development. British Journal of Educational Technology, 17(2), 103-109.
- Cox, B. E., Reason, R. D., Tobolowsky, B. F., Brower, R. L., Patterson, S., Luczyk, S., & Roberts, K. (2017). Lip service or actionable insights? Linking student experiences to institutional assessment and data-driven decision making in higher education. *The Journal of Higher Education*, 88(6), 835-862.
- Datnow, A., & Hubbard, L. (2016). Teacher capacity for and beliefs about data-driven decision making: A literature review of international research. *Journal of Educational Change*, 17(1), 7-28.
- Doll Jr, W. E. (1989). Foundations for a post-modern curriculum. *Journal of Curriculum Studies, 21*(3), 243-253. Espinoza, Ó., González, L. E., McGinn, N., Castillo, D., & Sandoval, L. (2019). Factors that affect post-
- graduation satisfaction of Chilean university students. *Studies in Higher Education*, 44(6), 1023-1038.
- Estaji, M., & Shafaghi, M. (2018). Teacher evaluation in EFL context: Development and validation of a teacher evaluation questionnaire. *Issues in Language Teaching*, 7(2), 147-187.
- Eun, H., Sohn, Y. W., & Lee, S. (2013). The effect of self-regulated decision making on career path and major-related career choice satisfaction. *Journal of Employment Counseling*, 50(3), 98-109.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382-388.
- Gonzalez, C. M., Deno, M. L., Kintzer, E., Marantz, P. R., Lypson, M. L., & McKee, M. D. (2019). A qualitative study of New York medical student views on implicit bias instruction: implications for curriculum development. *Journal of general internal medicine*, *34*(5), 692-698.
- Grace, W. B. (2013). The quest for quality education: the case of curriculum innovations in Kenya. *European Journal of Training and Development*, 37(7), 678-691. doi:10.1108/EJTD-01-2013-0008
- Hackman, J. R., & Porter, L. W. (1968). Expectancy theory predictions of work effectiveness. *Organizational Behavior and Human Performance*, *3*(4), 417-426.

- Hadromi, A. (2018). model for a vocational school-corporate/industry partnership to improve students' technical skills. *World Transactions on Engineering and Technology Education (WTE & TE), 16*(1), 89-94.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis: Pearson new international edition*: Pearson Education.
- Handayani, M. N., Ali, M., & Mukhidin, D. W. (2020). Industry perceptions on the need of green skills in agribusiness vocational graduates. *Journal of Technical Education and Training*, 12(2), 24-33.
- Harden, R. M., Sowden, S., & Dunn, W. R. (1984). Educational strategies in curriculum development: the SPICES model. *Medical Education*, 18(4), 284-297.
- Hodkinson, P., & Sparkes, A. C. (1997). Careership: a sociological theory of career decision making. *British Journal of Sociology of Education, 18*(1), 29-44. doi:10.1080/0142569970180102
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Ibrahim, M. Z., Ab Rahman, M. N., & Yasin, R. M. (2014). Determining Factors of Students' Satisfaction with Malaysian Skills Training Institutes. *International Education Studies*, 7(6), 9-24.
- Johnson, R. L., Liu, J., & Burgess, Y. (2017). A model for making decisions about ethical dilemmas in student assessment. *Journal of Moral Education*, 46(2), 212-229.
- Jöreskog, K. G., Olsson, U. H., & Wallentin, F. Y. (2016). *Multivariate analysis with LISREL*. Switzerland: Springer.
- Jöreskog, K. G., & Sörbom, D. (1993). LISREL 8: Structural equation modeling with the SIMPLIS command language. New York: Scientific Software International.
- Kember, D., Leung, D. Y., & Kwan, K. (2002). Does the use of student feedback questionnaires improve the overall quality of teaching? *Assessment & Evaluation in Higher Education*, 27(5), 411-425.
- Kippers, W. B., Wolterinck, C. H., Schildkamp, K., Poortman, C. L., & Visscher, A. J. (2018). Teachers' views on the use of assessment for learning and data-based decision making in classroom practice. *Teaching and teacher education*, *75*, 199-213.
- Kline, R. B. (2015). Principles and practice of structural equation modeling: Guilford publications.
- Koufteros, X., Babbar, S., & Kaighobadi, M. (2009). A paradigm for examining second-order factor models employing structural equation modeling. *International Journal of Production Economics*, 120(2), 633-652.
- Kurup, P. M., Li, X., Powell, G., & Brown, M. (2019). Building future primary teachers' capacity in STEM: based on a platform of beliefs, understandings and intentions. *International Journal of STEM Education*, 6(1), 1-14.
- Leathwood, C., & Phillips, D. (2000). Developing curriculum evaluation research in higher education: Process, politics and practicalities. *Higher Education*, 40(3), 313-330.
- Liu, Y., Bellibaş, M. Ş., & Gümüş, S. (2021). The effect of instructional leadership and distributed leadership on teacher self-efficacy and job satisfaction: Mediating roles of supportive school culture and teacher collaboration. *Educational Management Administration & Leadership*, 49(3), 430-453.
- María Cubillo, J., Sánchez, J., & Cerviño, J. (2006). International students' decision-making process. International Journal of Educational Management, 20(2), 101-115. doi:10.1108/09513540610646091
- Martin, J., & Sugarman, J. (1997). The social-cognitive construction of psychotherapeutic change: Bridging social constructionism and cognitive constructivism. *Review of General Psychology*, 1(4), 375-388.
- Maryanti, R., & Nandiyanto, A. B. D. (2021). Curriculum development in science education in vocational school. ASEAN Journal of Science and Engineering Education, 1(3), 151-156.
- McMillan, J. H. (2005). Understanding and improving teachers' classroom assessment decision making: Implications for theory and practice. *Educational Measurement: Issues and Practice, 22*(4), 34-43.
- Michael L, W., Dana, L., & Martin, A. (2001). Achieving access to the general curriculum for students with mental retardation: A curriculum decision-making model. *Education and Training in Mental Retardation and Developmental Disabilities*, 36(4), 327-342.
- Murniati, A., Usman, N., & Azizah, A. (2016). Vocational School-Industry Partnership in Improving Graduate Competency. *Jurnal Ilmiah Peuradeun*, 4(3), 269-280.
- Nilsson, P. A., & Ripmeester, N. (2016). International student expectations: Career opportunities and employability. *Journal of International Students*, 6(2), 614-631.
- Olcum, D., & Titrek, O. (2015). The effect of school administrators' decision-making styles on teacher job satisfaction. *Procedia-Social and Behavioral Sciences*, 197, 1936-1946.
- Peng, H., & Herr, E. L. (1999). The impact of career education courses on career beliefs and career decision making among business college students in Taiwan. *Journal of Career Development, 25*(4), 275-290.
- Peng, Z., Lawley, M., & Perry, C. (2000). *Modelling and testing effects of country, corporate and brand images on consumers' product evaluation and purchase intention*. Paper presented at the Proceedings of ANZMAC 2000 Australian and New Zealand Marketing Academy Conference.
- Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability.

Journal of Applied Psychology, 98(1), 194–198.

- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of applied* psychology, 88(5), 879-903.
- Qureshi, S. (1995). College accession research: New variables in an old equation. Journal of Professional Services Marketing, 12(2), 163-170.
- Reese, R. J., & Miller, C. D. (2006). Effects of a university career development course on career decisionmaking self-efficacy. *Journal of Career Assessment*, 14(2), 252-266.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students: Pearson education.
- Savickas, M. L. (2002). Career construction. In D. Brown (Ed.), *Career choice and development* (Vol. 149, pp. 205). San Fransciso: CA: Jossey-Bass.
- Savickas, M. L. (2005). The theory and practice of career construction. In D. Brown & R. T. Lent (Eds.), *Career development and counseling: Putting theory and research to work* NJ: Wiley: Hoboken.
- Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673.
- Shen, X., Gu, X., Chen, H., & Wen, Y. (2021). For the future sustainable career development of college students: exploring the impact of core self-evaluation and career calling on career decision-making difficulty. *Sustainability*, 13(12), 6817.
- Shinn, M. R. (1988). Development of Curriculum-Based Local Norms for Use in Special Education Decision-Making. *School Psychology Review*, 17(1), 61-80. doi:10.1080/02796015.1988.12085326
- Siuty, M. B., Leko, M. M., & Knackstedt, K. M. (2016). Unraveling the Role of Curriculum in Teacher Decision Making. *Teacher Education and Special Education*, 41(1), 39-57. doi:10.1177/0888406416683230
- Spooren, P., Mortelmans, D., & Denekens, J. (2007). Student evaluation of teaching quality in higher education: development of an instrument based on 10 Likert-scales. *Assessment & Evaluation in Higher Education*, 32(6), 667-679.

Stephen, P., Robbins, P. S., & Coulter, A. M. (2018). Management (14th ed.). UK: Pearson: London.

- Thekedam, J. S. (2010). A study of job satisfaction and factors that influence it. *Management and Labour Studies*, 35(4), 407-417.
- Turner, J. (1998). An investigation of business undergraduates' choice to study at Edith Cowan University. 1998: unpublished research report. *Edith Cowan Universit*.
- UNICEF. (2000). Defining quality in education. New York, NY: UNICEF.
- Yamane, T. (1973). Statistics: An introductory analysis (3rd ed.). New York.: Harper and Row.
- Yin, H., & Wang, W. (2015). Assessing and improving the quality of undergraduate teaching in China: the Course Experience Questionnaire. Assessment & Evaluation in Higher Education, 40(8), 1032-1049.