ESSENTIAL SKILLS FOR FRESH UNDERGRADUATE STUDENT FOR EMPLOYABILITY IN 21ST CENTURY*

[1]Sokhoeum Chhoeung [2]Arunee Hongsiriwat
[1,2]Chulalongkorn University, Thailand
Corresponding Author E-mail: chhoeungsokhoeum90@gmail.com

Abstract

The purpose of this research is to desirable level of T-Shaped Professional components for enhancing Cambodian undergraduate students' employability in the 21st century from employers' perspectives. The samples of this research consist of selective 3 participants who are in the position of recruiting the fresh staff (Human Resource) from 3 different organizations which are (1) international business NGO, (1) from a local NGO and (1) local private firm with 2 experts (a Cambodian lecturer and an Educational Officer from the Department of Education in Australia). The purposive sampling technique is used. The research instruments were questionnaire and a set of question for focus group discussion. The questions were reviewed and checked by three experts and the methodology of valuation used was the IOC. The statistics used for analyzing data include frequencies, percentages, means. By examining employer expectations, the study identifies a set of 14 essential skills necessary for new graduates to thrive in the current job landscape such as. The methodology involved a descriptive research design, data synthesis from varied resources, and interviews with 5 selected stakeholders. The methodology involved a descriptive research design, data synthesis from varied resources, and interviews with 5 selected stakeholders. Findings underscore the need for education systems to incorporate both hard and soft skills into their curricula to bridge the employability gap, thereby better preparing graduates for the dynamic workforce of the 21st century.

Keywords: Hard Skill, Soft Skill, T-Shaped Professional, Desired Competencies from the Employers', Faculty Members' & Administrators' Perspectives

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Introduction

The global phenomenon of unemployment is on the rise, with approximately two-thirds of tertiary students expressing concerns about their future job prospects. This apprehension can be attributed to various factors, including intense market competition, disruptive technological advancements, political transformations, and complex societal challenges. These issues have been identified as significant obstacles that adversely affect the employability of fresh graduates (Microsoft, 2016; UNESCO, 2023) . Lacking potential skills, however, is claimed to be the is the leading cause of unemployment in this modern era. (Bierema, 2019; International Labour Office, 2022; World Economic Forum, 2020)

In Cambodia, Fresh graduate students have faced several challenges in meeting the demands of the job market, including skills mismatch, outdated curriculum, lack of practical experience, limited access to resources, inadequate soft skills, insufficient career guidance, economic constraints, low investment in research and development which solely impact on their quality and potential future careers. (Ministry of Education Youth and Sport, 2019; Open Development Cambodia, 2020; Un & Sok, 2018)

A worrying trend emerges as statistics reveal a deficiency of crucial employability skills, leading to a rising unemployment rate. A study conducted in the country found that 73% of graduates lack the necessary skills for employment, while employers themselves, accounting for 76% of respondents, expressed that graduates generally lack prominent skills that are crucial for employability. (World Bank, 2012) A separate research study presents a highly surprising statistic regarding the employment status of 8,000 fresh college graduates from 47 different institutions. According, Hagenlocher and Rith (2006)a study conducted on a sample of 8,000 undergraduate students revealed that 900 of them were unemployed. This suggests that the employability prospects for fresh graduates in Cambodia are concerning. Consequently, it is crucial to identify and develop specific skills that can improve students' employability skills and make them more attractive to potential employers. The latest employer survey by Asian Development Bank (2021, pp. 19-30) revealed a significant problem in the quality of graduates hired in Cambodia. Only 10% of employers believed that graduates were adequately prepared for employment.

Objective of this Research

To investigate the desirable level of T-Shaped Professional components for enhancing Cambodian undergraduate students' employability in the 21st century from employers' perspectives.

Research Methodology

The study is designed to be descriptive research of which content and data analysis will be used to study and synthesized the content data based.

1. Participants

Participants are five different stakeholders who had been purposively selected from different sectors. 3 of them are the Human Resource Management Team, and there are recruiting new employees for their institutions while the other 2 are the experts from the administrative team. One of the experts is local while another one is international.

2. Design and Procedure

Since the accessibility of the T-Shaped Professional skills are limited, then all the available open resources can be found in Chulalongkorn University Data Bases (Scopus, Eric, Google Scholars, etc.) and other Open Resources like websites on Google had been consulted with and synthesized. As the result 23 components of T-Shaped Professional have been synthesized from 18 resources and publications. However, on the rely able institutions and publications had been considered (See Table 2).

3. Instrument

After component are being synthesized, then only the components with maximum frequency are being selected. Some essential and at high demand skills at local and international level, are added to fit in Cambodian situation and the rapid change of the 21st century. As the result 12 essential skills are generated (see Figure.1) and they are used to create five main question and the follow up questions.

Five participants had been pre-contacted. The interview had been conducted in two different ways for sake of convenient of participants; the physical and virtual planform (Zoom Application).

T-Shaped Professional Components from various academic sources. The most recognized components are depth of knowledge (17 mentions), Critical Thinking (13), Teamwork (11), and Communication (10). Less cited skills include Organizational Skills, Innovative Adaptation, and Project Management, noted 1-8 times each. This indicates a consensus on certain T-shaped competencies being more universally recognized, while others may be more specific to certain fields or less emphasized in the literature.

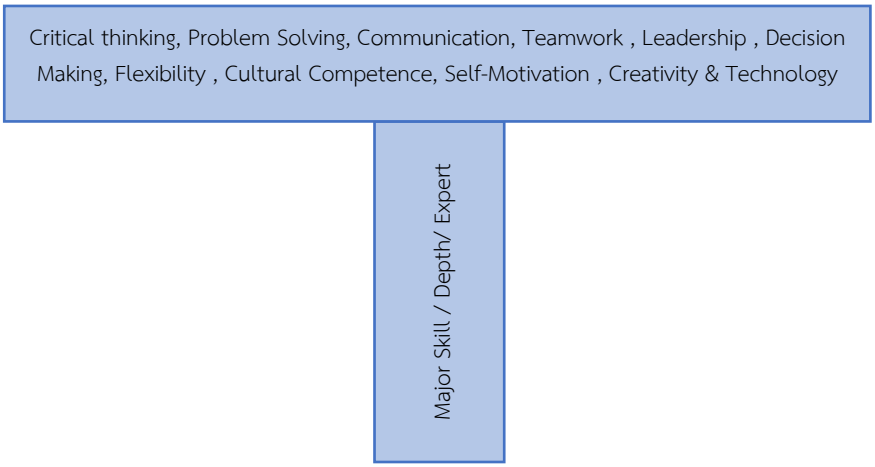

Figure 1 Essential Components of T-shaped Professional for Fresh Undergraduate Students in Cambodia

Research Results

The Result of T-Shaped Professional Components from Global Perspective.

From global perspectives, 23 distinct T-shaped Professional components were identified. However, the frequency of these components varied significantly. Analyzing the table, six components emerged as having the highest frequency, ranging between 9 and 17 mentions.

"Knowledge" and "expertise" lead with the highest frequency, trailed by "critical thinking" at a frequency of 13. "Teamwork" was cited 11 times, while "communication" was mentioned 10 times. Furthermore, "holistic understanding" and "problem-solving" both garnered a frequency of 9.

On the other end, components such as "organizational skills," "tolerance," "adaptation," "deeper learning," "analytical reasoning," and "self-directed learning" appear less frequently, each with only one mention.

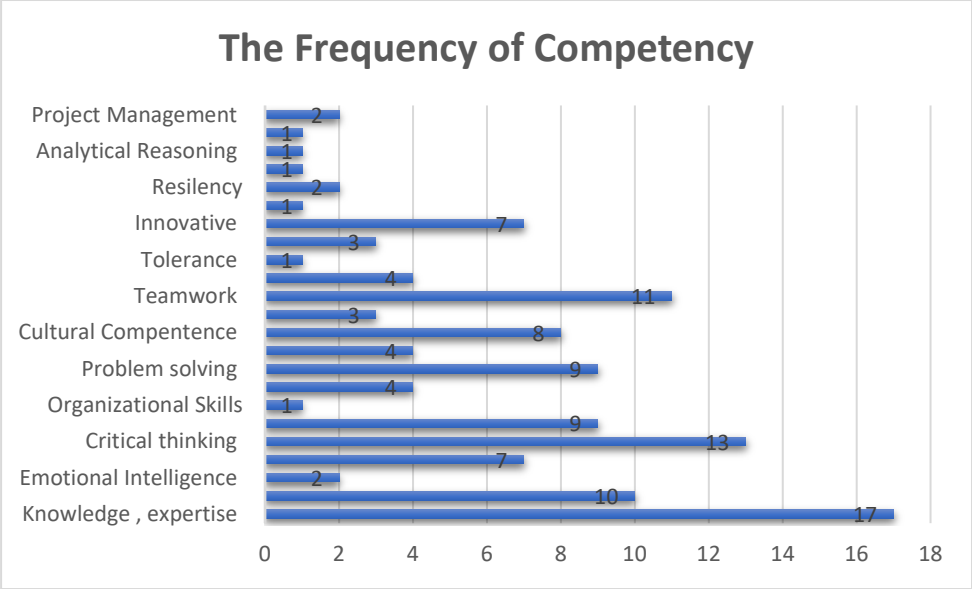

Figure 2 Frequency of Mastery competencies cited.

The Result of T-Shaped Professional Components from Overall Cambodia' Perspectives.

The depicted T-shaped component t(Figure.1) emphasizes the integration of a breadth of skills with a depth of expertise.

On the horizontal axis, a range of skills (11 components) representing the breadth of the T-shape is outlined. These include Critical Thinking, Problem Solving, Communication, Teamwork, Leadership, Decision Making, Flexibility, Cultural Competence, Self-Motivation, Creativity, Technology.

In contrast, the vertical axis, labeled "Major Skill / Depth/ Expert," signifies the depth of expertise in a specific domain. This depth illustrates a profound understanding or specialization in a particular skill or field. Individuals with this kind of depth can delve deep into their area of expertise, offering in-depth insights and specialized solutions.

From the synthesized of Overall Cambodia and Stakeholders' Perspectives.

The table presents a comparison between the components of T-Shaped Professionals (TSP) as identified in literature reviews (LR) and the perspectives of stakeholders (SP). Both sources concur on the overall significance of hard skills. However, there is a slight disparity in the identification of soft skills, with the literature listing 11 components compared to the stakeholders' enumeration of 13.

A shared understanding exists between both parties regarding the importance of critical thinking, problem-solving, communication, teamwork, flexibility, creativity, and technology. However, the literature specifically identifies leadership, decision-making, cultural

competence, and self-motivation as crucial attributes, while stakeholders emphasize open-mindedness, initiative, talent, determination, loyalty, and networking.

In conclusion, although there is some agreement on certain components of T-shaped professionals, there are also distinct contributions from both the literature and stakeholders, emphasizing the multi-dimensional nature of these professionals.

Table 1 The Comparison of TSP from Literature Review with Stakeholders' Perspectives

The Comparison of TSP from Literature Review with Stakeholders' Perspectives.				
Synthesized Components of TSP(LR)		Synthesized Components of TSP(SP)		Similarity
Hard Skill	Expertise/ Dept skill	Hard Skill	Expertise/ Dept skill	√
Soft Skills	11 components:	Soft skills	13 components:	√
	1. Critical thinking		1. Critical thinking	√
	2. Problem solving		2. Problem solving	√
	3. Communication		3. Communication	√
	4. Teamwork		4. Teamwork	√
	5. Leadership		5. Open minded	_
	6. Decision making		6. Initiative	_
	7. Flexibility		7. Flexibility	√
	8. Cultural competence		8. Talent	_
	9. Self-motivation		9. Determination	_
	10. Creativity		10. Creativity	√
	11. Technology		11. Technology	√
			12. Loyal	_
			13. Networking	_

√ Means similarity or exactly the same

– Means either not exist or different

Table 2 The Result of T-Shaped Components & the Level of Mastery Skills Possessed by Fresh Graduates from Stakeholders 'Perspective

No.	Name	Types of Organizations	Skill need	Overall Undergraduates' skills (100%)	
				Expertise (hard skills)	Breadth Skills (soft skill)
1.	A	Local NGO	- Talent - Determination	40%	0%
2.	B	Private Sector	- Communication - Teamwork - Loyal,	10%	10%
3.	C	International NGO	- open mindset - take initiative. - Creative - Critical thinking - Flexible - Communication	30%	30%
4.	D	Vice Dean of Private University	- Communication - Critical thinking - Problem Solving - Technology	50-70%	40-50%
5.	E	State Sector from Australia	- Teamwork - Communication - Networking	70%	70%
			Median	**45%**	**35%**

The data represented in Table 4 provides an insightful overview of the perceived proficiency levels in T-shaped skills among recent graduates, according to different stakeholders. The stakeholders, ranging from local and international NGOs to private sector entities, a private university, and an Australian state sector organization, have provided their assessments of the graduates' mastery in these two domains, the expertise and breath skills.

The summary table presents a diverse evaluation of recent graduates' abilities in specialized and soft skills from different organizational perspectives. Local NGO (A) and the private sector (B) observe a significant lack of expertise in graduates, with ratings at 40% and 10% respectively, particularly in breadth skills. In contrast, an international NGO (C) acknowledges a more balanced but still limited command of these competencies, rating them both at 30%. Academia (D) provides a relatively positive assessment, suggesting that graduates have a proficiency level of 50-70% in expertise and 40-50% in breadth skills. The most favorable review comes from an Australian state sector entity (E), which praises graduates for having a 70% proficiency in both skill areas. The median proficiency rates, 45% for expertise and 35% for breadth skills, show a consensus among stakeholders that there is a need to improve the development of both core and soft skills in the graduate population.

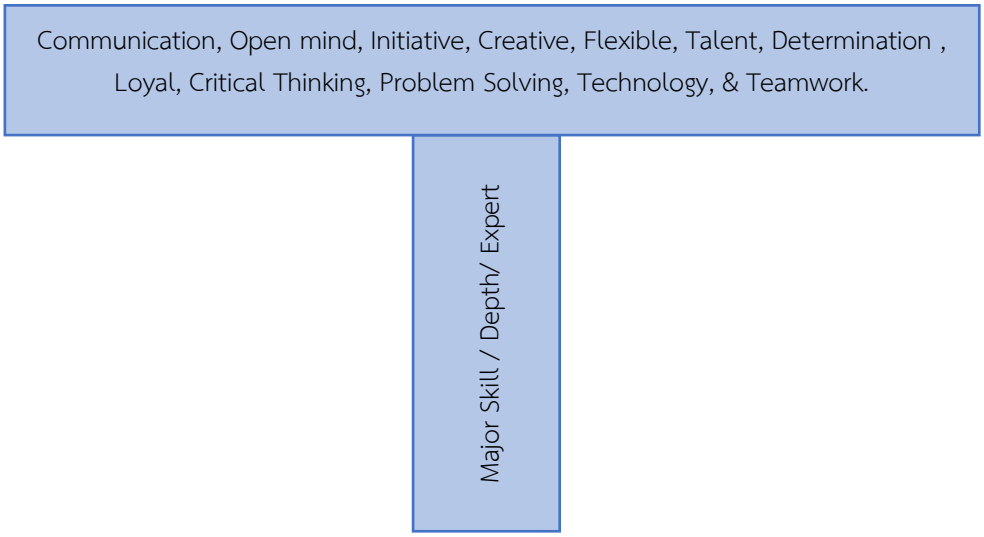

Figure 3 T-Shaped Components for Fresh Undergraduate Students in Cambodia

Research Discussion

Relevant skills and knowledge are crucial for career success. Students must strategically align their skill development with market trends and avoid overloading themselves abilities that may not be pertinent to their specific context, particularly within Cambodia or international level. Furthermore, understanding employer expectations are paramount for aspiring professionals, especially fresh graduates. Therefore, it is crucial for these graduates to grasp the specific competencies sought by potential employers and align their qualifications accordingly (Crossman & Clarke, 2010). Fresh graduates are contended to cultivate a depth of expertise complemented by a spectrum of soft skills, epitomized as the T-shaped Professional (Gardner, 2017). Numerous studies affirm the positive correlation

between T-shaped professionalism and enhanced employability. For instance, students with T-shaped competencies are often at a competitive advantage in securing roles in a rapidly evolving job market when compared to their peers (Gianecchini et al., 2022; Tisdell, 2016; University, 2014). However, a considerable portion of this research primarily focuses on recent graduates, with limited exploration across varied disciplines. The predominant sectors under study include medical health, engineering, and communication arts, implying that T-shaped skills might be context-specific and not uniformly applicable across fields. For instance, Gianecchini et al. (2022, pp. 85-86) accentuate digital competencies as core expertise, with scant attention to broader skills like communication, problem-solving, and project management. In contrast, Lucas (2015) underscores the importance of critical thinking, holistic understanding, problem-solving, cultural competence, and flexibility (See also Table 2). A comprehensive review of 200 open-source documents on TSP indicates that the nature of the professions substantially influences both the requisite expertise and the spectrum of mastery skills. However, according to the respondents form stakeholders, fresh undergraduate students in Cambodia are motivated to have an expertise and other 13 mastery skills (See figure 3).

In Cambodia, the prevailing issue of graduate unemployment is closely linked to inadequate skill sets. Employers frequently cite a mismatch in the expertise of Cambodian applicants, noting a deficit in mastery skills crucial for task completion, leading to high rejection rates and subsequent job abandonment, as reported by World Bank (2012). Interview data from five stakeholders indicate that 35% of applicants demonstrate a deficiency in breadth skills. Nonetheless, the required level of mastery varies with career paths and organizational contexts (refer to Table 5). In terms of expertise, there appears to be a significant gap between graduate skills and job requirements, with only 45% of applicants deemed satisfactory.

Table 4 highlights a significant obstacle for Cambodian graduates seeking employment, rooted in a pronounced discrepancy between their current skill set and market demands. This gap is illustrated by the 'T-shaped' skills profile, where depth of knowledge (vertical mastery) stands at a concerning 45%, and the breadth of applicable skills (horizontal breadth) is even lower at 35%. Such a disparity not only impedes their employability but also signals an imperative need for educational reform (Coll & Zegwaard, 2006). Academic curriculums require alignment with the evolving prerequisites of the workforce, to foster a holistic development of skills in graduates, consequently enhancing their job prospects post-graduation (Marić, 2013).

In Table 4, stakeholders highlight three primary components among the 13 mentioned: Communication is the most cited (3 occurrences), followed by Teamwork and Critical Thinking, each with a frequency of 2. This data suggests a deficit in these skills among Cambodian students, as noted by Boun et al. (2020). Additionally, Harvard University (2023)

places considerable importance on these skills for enhancing employability. Consequently, it is vitally important for students to develop these key competencies to secure promising career prospects.

Research Body of Knowledge

The Research Body of Knowledge of this study is the study identifies 14 essential competencies, collectively termed 'T-shaped Professional Skills', encompassing Communication, Open-mindedness, Initiative, Creativity, Flexibility, Talent, Determination, Loyalty, Critical Thinking, Problem Solving, Technological proficiency, Teamwork, and a domain-specific expertise (Hard skill). Furthermore, it assesses the potential level of these skills, which is critical for enhancing employability prospects from stakeholders' perspectives. The findings underscore a pressing need for academic institutions to reevaluate and update their curricula to reflect the contemporary requirements of the labor market, with the aim of fostering a robust and comprehensive skill set in students, thereby bolstering their employability after completing their education in Figure 4.

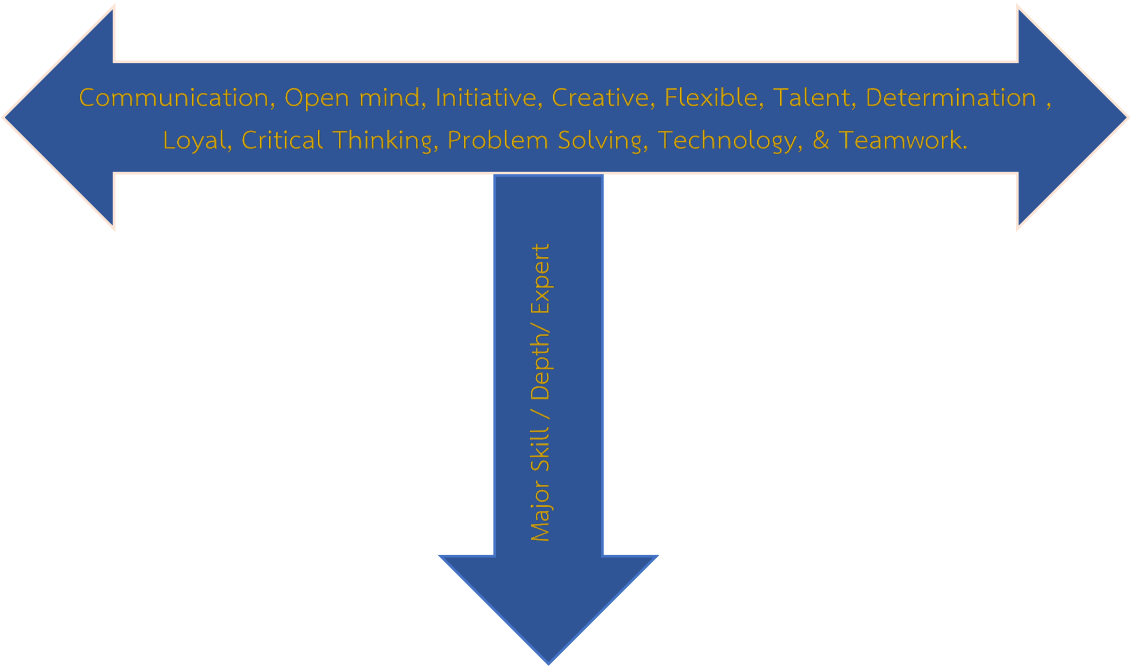

Figure 4 Essential Skills for Employment from Stakeholders 'Perspective

Research Suggestion

1. Suggestions in practice

1.2 T-shaped skills that year 3 and year 4 are require have; have been manifest.

1.2 Educational institutions might take this result as the reflection in nurturing their students or using it as the study tool related to students' mastery competency as well as stakeholder expectation.

2. Suggestions for research

2.1 To conduct research such factor analysis to confirmed with the T-Shaped component.

2.2 Using this study as the steppingstone to develop or design new extracurricular for enhancing students' mastery competencies or integrate in the teaching curriculum such as science and technology, social science, and humanity.

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