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Challenges and Strategies for Expanding Enterprise-Based Training to Develop Skills for the ICT Industry in the Philippines

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Abstract

Purpose: Since 2000, the Philippines has experienced significant growth domestic product (GDP) growth, particularly in the Information Technology Business Process Outsourcing (IT-BPO) sector, highlighting the need for skill development through Technical Vocational Education and Training (TVET). Although enterprise-based training (EBT) is seen as the optimal strategy for supporting transition to a technology-driven economy, it represents less than 4% of TVET offerings. Research on the challenges and strategies for increasing employer participation in EBT, especially within the information and communication technology (ICT) industry, is currently lacking. This study examines these challenges and explores strategies for expanding EBT in the Philippines.

Methods: The study employed a qualitative methodology. Data was collected through 13 semi-structured interviews with TVET public agency representatives, private sector representatives, and international TVET experts who supported TVET development in the Philippines. In addition, an online meeting by the Private Sector Advisory Council Jobs Committee was observed to explore the research question. Analysis occurred concurrently with data collection to identify themes iteratively.

Findings: Successful employer engagement in EBT requires EBT to be viewed as both a private and a public good. Findings are organized around these two fundamental concepts. In the Philippines, structural challenges such as wage requirements, insufficient program

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duration, and inefficient tax benefits currently prevent EBT from effectively functioning as a private good for building company talent pipelines. Additionally, the lack of systematic involvement from social partners, lengthy processes for establishing occupational standards, and insufficient awareness hinder EBT from being recognized as a public good. To enhance its role as a private good, EBT design should include wage increase schedules and longer program durations. To establish EBT as a public good, it is suggested that there be systematic involvement from social partners, flexible regulations, and sector-based strategies.

Conclusion: This study enhances the understanding of employer engagement in TVET within the Filipino context and provides policy implications for enhancing EBT in the ICT sector. These insights could potentially be applicable in similar contexts, such as developing countries with a demand for skilled workers in technology-based industries, but lacking employer engagement. It recommends future research to further explore employer engagement with a particular emphasis on strategic collaboration with social partners, given their crucial role in engaging employers.

Keywords: Enterprise-Based Training, Apprenticeships, Employer Engagement, Philippines, VET, Vocational Education and Training

1 Introduction

Since 2000, the Philippines has experienced significant growth in gross domestic product (GDP), particularly in the Information Technology Business Process Outsourcing (IT-BPO) industry. Consequently, developing skills to support the transition to a technology-based economy through Technical Vocational Education and Training (TVET) has taken center stage (Asian Development Bank, 2021a; Dadios et al., 2018; Technical Education and Skills Development Authority [TESDA], 2016). Although the nation's per capita GDP, adjusted for purchasing power parity, was only half of the global average at $9,471 in 2019, the Philippines achieved an impressive annual growth rate of 6.3% between 2010 and 2019. This growth was driven by a structural transformation that shifted resources from lower- to higher-productivity economic sectors over the past two decades. This transformation is exemplified by the notable growth of the IT-BPO industry, which had a growth rate of 17-18% between 2000 and 2015 (Asian Development Bank, 2021a). By 2016, IT-BPO revenue reached an estimated $22.9 billion, accounting for 8.5% of the Philippines' GDP (Asian Development Bank, 2018).

However, the advancement of service automation, accelerated by artificial intelligence, robotic processes, big data analysis, and cloud computing as part of the Fourth Industrial Revolution, has created a heightened demand for upskilling and reskilling the workforce as the country endeavors to transition toward a technology-driven economy. Currently, 62% of IT-BPO jobs are categorized as clerical support, including call center workers. Without

upskilling and reskilling, it is expected that 24% of employment in IT-BPO may be displaced by 2030 due to service automation (Asian Development Bank, 2021a).

As a result, discussions on enhancing workforce preparedness for the technology-based industry through TVET have received attention from both the government and the private sector (Asian Development Bank, 2021b; Dadios et al., 2018; TESDA, 2016). Presently, most TVET programs in the Philippines target traditional industries, such as tourism, agriculture, and construction-related occupations, offering non-credit-bearing, post-secondary education regulated by the Technical Education and Skills Development Authority (TESDA). Information and communication technologies (ICT) rank tenth in TVET offerings, representing only 4.4% of the total. The available ICT programs focus largely on gaming, animation, and a limited number of programming languages (TESDA, n.d.-b), which is insufficient preparation for the Fourth Industrial Revolution. Moreover, most of this training is institution- and community-based, lacking employer engagement (Orbeta, 2022), a crucial component of vocational education. While TVET offerings in the Philippines include enterprise-based training (EBT), and scholars and practitioners acknowledge EBT as the ideal TVET strategy in preparation for the technology-oriented economy in the Philippines (Asian Development Bank, 2021a; Dadios et al., 2018; Orbeta & Esguerra, 2016; TESDA, 2016), EBT constitutes less than 4% of the overall TVET offerings in the country (Orbeta & Corpus, 2021).

EBT inherently aligns with the constantly evolving demands of the modern workplace. With technology advancing at such a rapid pace, certain tasks may become outdated, causing specific skills to lose their relevance. In this context, EBT holds a distinct advantage. However, a comprehensive study exploring the challenges and strategies for EBT expansion at the system level—particularly in the ICT industry—is currently lacking. The limited existing studies on TVET in the Philippines have primarily focused on the current landscape of TVET and general suggestions for improvement in the knowledge economy (Asian Development Bank, 2021a, 2021b; Budhrani et al., 2018; Orbeta, 2022). The few studies on EBT have focused on cost analysis (Mapa et al., 2016) and examples of EBT in traditional TVET occupations (Dernbach, 2020), yet these studies were conducted primarily in traditional occupations, not in ICT.

Therefore, this qualitative study explores the challenges and strategies for expanding EBT in the Philippines based on the perceptions of primary TVET stakeholders/experts: TVET public agencies, private sector representatives, and vocational education providers. Particular attention is given to the ICT industry, in line with the nation's efforts to transition into a technology-based economy and enhance workforce skills. Through a comprehensive examination of EBT at the system level, using the framework of incentives for EBT as both private and public goods (Chankseliani & Anuar, 2019), this study provides policy recommendations for improving the EBT system and effectively engaging employers in the Philippines. More broadly, this study also offers insights into employer engagement in TVET,

which can be applicable beyond the Philippines, particularly for developing countries aiming to transition to a knowledge- and technology-based economy, where skilled talent development through TVET is essential.

2 Literature Review

Before delving into the overview of TVET and employer engagement in the Philippines, this chapter begins by examining the general incentives for employer engagement in TVET. To do so, it uses the term "apprenticeships" to refer to a TVET model that combines both on-the-job and off-the-job training, culminating in a recognized qualification (International Labor Organization [ILO], 2023).

2.1 Incentives for Employer Engagement in TVET: Private vs Collective Good

According to Chankseliani and Anuar (2019), the incentives that drive employers to participate in apprenticeships require such programs to be regarded not only as a *private* good, which can build their talent pipeline, but also as a *collective* good, which can support talent development for the entire industry. When seen primarily as a private good, companies invest in apprenticeships because these programs serve as a recruitment pipeline with a positive return on investment. They enable companies to evaluate an apprentice's performance before committing to full-time employment. Additionally, companies benefit from training apprentices directly within their specific organizational culture and work environments, where the skills will be applied. Employers often see increased productivity from apprentices after their initial training period (Goger et al., 2021), which serves as an incentive since apprentice wages are typically low. Other costs associated with apprenticeships, such as training in schools and off-the-job settings, are often subsidized through various cost-sharing arrangements between employers and governments. Apprenticeships can also cultivate increased motivation and loyalty among apprentices, who highly value their employers' active role in their development through investments in training (Kuehn et al., 2022; Payne, 2020). These factors, categorized as private goods, incentivize companies to engage in apprenticeships. However, despite these advantages, employers may perceive apprenticeships as too risky, complex, and costly to justify their investment, fearing the potential loss of their trained talent to other companies (Mohrenweiser et al., 2018). Moreover, the relatively low status of apprenticeships in certain countries also impacts employers' willingness to engage in this model.

The sustainability of the apprenticeship model is more likely when companies perceive it as both a private *and* collective good (Chankseliani & Anuar, 2019). This perspective is evident in German-speaking countries with a longstanding apprenticeship tradition. There,

training apprentices is regarded as vital for the industry's talent pool, alleviating concerns of talent poaching since employers are also likely to work with those trained by other employers (Wolter & Ryan, 2011). This collective outlook is enabled by the presence of country-specific collective institutions, such as chambers, councils, employer associations, associations of educational and vocational schools, and unions that represent employers' workforce needs (Votinius & Rönnmar, 2021). These social partners or also referred as intermediaries, often take the lead in designing, assessing, and administering apprenticeships to yield mutually advantageous outcomes for employers' human resource development. This collective sense of ownership motivates employers to view apprenticeship training as a sector-wide investment and also acts as a peer pressure mechanism (Wolter & Ryan, 2011), encouraging reluctant companies to invest in the development of shared human resources (Chankseliani & Anuar, 2019). While the makeup of social partners is often historically determined and varies from country to country, their strong engagement characterizes a robust apprenticeship system. In contrast, in school-based TVET systems, their involvement tends to be less pronounced (Organisation for Economic Co-operation and Development [OECD], 2022) and it is extremely challenging for such engagement to develop organically (Chankseliani & Anuar, 2019) without government intervention and incentives.

Establishing apprenticeships as both a private and collective good also necessitates having a supportive ecosystem in place. This includes the presence of a legal framework that recognizes TVET as a viable educational pathway providing access to the labor market and enables a sound governance structure to effectively engage key stakeholders including social partners. Additionally, there should be national training standards to ensure the quality and portability of credentials within the education system and access to entry-level work. Finally, a proper funding mechanism is crucial to alleviate potential financial burdens associated with training, typically involving co-financing from both the government and the business community (Bliem et al., 2014; Euler, 2013; Gonon, 2014). These essential elements are interconnected, creating a healthy TVET ecosystem that attracts both employers and learners.

2.2 Overview of Technical and Vocational Education and Training in the Philippines

The current Philippine education system operates under a tripartite governance structure, overseen by three distinct agencies. The Department of Education (DepEd) administers basic, compulsory K-12 education, while tertiary education, encompassing baccalaureate degree programs, falls under the purview of the Commission on Higher Education (CHED) (Mapa et al., 2016). Established in 1994, TESDA assumes national leadership in the TVET sector by mobilizing industry, labor, local government, and technical and vocational institutions for the skills development of the country's human resources (Orbeta, 2022; TESDA, n.d.-a). In 2013,

the Philippines underwent a significant educational reform by extending the duration of basic education from 10 years to 12 years. As a result, TVET was integrated into high school, introducing a Technical Vocational and Livelihood (TVL) track for students in grades 11 and 12. This integration provides high school students with the opportunity to obtain basic National Certificates (levels I & II) upon successful completion (Budhrani et al., 2018).

The primary mission of TVET in the Philippines is to provide a postsecondary pathway for high school graduates opting for vocational education over a university path, while also providing livelihood training for the unemployed and out-of-school youth (TESDA, 2018). Currently, approximately 60% of enrollees in public institutions are pursuing TVET programs. TVET enrollment has shown consistent growth over the past decade, rising from 1.6 million in 2010 to 2.5 million in 2019, indicating sustained and increasing interest. A notable recent trend is the increasing number of college students and graduates pursuing TVET alongside their degree program. In fact, their enrollment constituted 59% of TVET graduates in 2019, significantly higher than the 16% with high school and junior high school backgrounds. This trend appears to be driven by the desire to diversify and enhance skill sets beyond a bachelor's degree in preparation for the increasingly dynamic labor market (Orbeta, 2022).

Currently, there are three primary modes of delivery in TVET in the Philippines: (a) Institution-based, delivered by various TVET institutions; (b) community-based, delivered by local government units or non-government organizations, targeting poor and marginalized groups; and (c) enterprise-based, implemented within companies in three specific program types and durations, such as apprenticeships (three to six months of work-based training), learnerships (one to three months of on-the-job training), and the Dual Training System (three to18 months of combined company and school training). In addition, TESDA recently added "monitored" programs—training conducted by other national government agencies—to the categories of the TVET model. In 2019, the majority of TVET programs were community-based (44.6%), institution-based (33.8%), or monitored (17.8%) without employers' involvement. As mentioned earlier, while enterprise-based training is often regarded as the ideal delivery mode driven by industry demand, EBT accounts for less than 4% (Orbeta, 2022). While there is no data on the percentage of ICT training within EBT, given that TVET programs for ICT industries constitute only 4.4%, one can reasonably infer a significant scarcity of EBT within this sector.

2.3 Employer Engagement for Enterprise-Based Training in the Philippines

To examine the potential of EBT as a private good, TESDA, in collaboration with the Federal Institute for Vocational Education and Training in Germany (BIBB) and the Philippine Chamber of Commerce and Industry (PCCI), conducted a cost-benefit analysis study for EBT (Mapa et al., 2016). While the short-term average costs of wages and training ($272 per

trainee per month) outweighed the short-term benefits ($117) of the productive contributions of trainees, long-term benefits, such as savings in recruitment costs and onboarding new hires, totaled $659 USD. This indicates a positive return on investment for the Dual Training System (DTS) in the Philippines when considering both short-term and long-term benefits. However, most companies in the study, primarily from the manufacturing, hospitality, and wholesale and retail sectors, engaged only in short- to mid-term training lasting less than three months to a maximum of 12 months. The overall study outcomes indicated Filipino companies should consider longer training periods to achieve a positive return on investment (ROI). This is particularly crucial for expanding EBT in the ICT industry, which typically requires longer training to establish a solid foundation and foster productivity.

Regarding the overall ecosystem supporting EBT, the Philippines has essential elements in place, such as relevant laws, funding, and processes for formulating occupational standards, also termed Training Regulations (TRs). For example, apprenticeships were included in the existing labor law in 1974 (Presidential Decree 442), and the Dual Training System Act (Republic Act 7686) was established in 1994, institutionalizing the DTS in accredited public and private educational institutions and training centers (Orbeta, 2022). The government also provides tax benefits for companies that engage in EBT (Mapa et al., 2016) and various scholarship programs for TVET, such as the Tulong-Trabaho (Help for Jobs) Fund, established in 2019 to provide financing for training costs and allowances. Moreover, TESDA has an established process for developing TRs, delineating competency standards, assessments, and detailed training arrangements. In doing so, TESDA includes industry experts as advisors (Orbeta, 2022). However, the currently available TRs tend to focus on traditional occupations, lacking industry standards needed to support the ICT industry through EBT (TESDA, n.d.-b).

3 Methodology

The study utilized a qualitative methodology to explore the challenges and strategies for expanding EBT in the Philippines, especially within the ICT industry. Considering that this study does not seek to validate or disprove a hypothesis, and the research question remains largely unexplored in existing literature, a qualitative methodology is the most suitable approach (Merriam & Tisdell, 2016).

3.1 Participant Selection and Recruitment

Target participants in the study were experts with practical and policy-level experience in implementing and supporting EBT in the Philippines. Based on literature reviews and online searches, potential participants were identified, including officials from TESDA, social partners (such as members of chambers and industry boards in the ICT sector), TVET training provi-

ders, and employers in the ICT sector. Additionally, experts in international TVET-supporting organizations that have partnered with TESDA, such as the German organizations and the Asian Development Bank, were sought out. Germany has been a leading supporter of enhancing vocational education in developing countries since the 1960s (Stockman, 2014) and has collaborated on several initiatives during the past decade to engage employers for EBT in the Philippines.

Through purposeful sampling, 35 target participants were contacted from October 2023 to May 2024 through email outreach, introductions, and LinkedIn messages, resulting in 13 interviewees who voluntarily participated. Table 1 below presents a list of these participants and their respective roles.

Table 1: List of Participants and Their Roles

#	Participant	Organization	Roles
1	TESDA 1	TESDA	As a long-time TESDA officer, TESDA1 supported various functions of TESDA including supporting the IT-BPO industry.
2	TESDA 2	TESDA	TESDA 2 supports companies in EBT registration and scholarships.
3	TESDA 3	TESDA	TESDA 3 coordinates the development of competency standards for ICT occupations.
4	Chamber 1	Philippine Chamber of Commerce and Industry (PCCI)	Chamber 1 collaborates with other social partners to engage employers for dualized training.
5	Chamber 2	German-Philippine Chamber of Commerce and Industry (GPCCI)	Chamber 2 also collaborates with other social partners to engage employers for dualized training.
6	Industry 1	IT and Business Process Association of the Philippines (IBPAP), Congressional committee	With several decades of industry experience in leadership roles, including in the BPO sector, Industry 1 serves on the board of IBPAP and supports the congressional committee on TVET policy.
7	Industry 2	Analytics & Artificial Intelligence Association of the Philippines (AAP)	Based on extensive experience in global IT-BPO companies, Industry 2 supports TESDA and companies in the development of IT skills.
8	Coordinator 1	sequa gGmbH (Partner of German Business)	As a German TVET expert, Coordinator 1 partnered with Filipino chambers and TESDA to t support dual training programs in the Philippines.
9	Coordinator 2	Asian Development Bank (ADB)	As a German TVET expert, Coordinator 2 supported TESDA in strategizing talent development for the Fourth Industry Revolution.
10	Coordinator 3	Asian Development Bank (ADB)	As an international TVET expert, Coordinator 3 supports TESDA in forging stronger engagement between TVET institutions and industry.
11	Advisor 1	German Federal Institute for Vocational Education and Training (BIBB)	As a German TVET expert, Advisor 1 supported TESDA in analyzing the cost-benefit aspects of the Dual Training System in the Philippines.
12	Trainer	MFI Polytechnic Institute	Trainer provides in-company training in engineering as part of EBT.
13	IT Educator	Angeles University	IT Educator engages employers to create IT internship opportunities for college students.

3.2 Data Collection

Data were collected through semi-structured interviews conducted online, typically lasting between 30 and 60 minutes. Interview questions included: What are the perceived reasons for low participation in EBT, particularly in the ICT sector? What are some current incentives available for employers who offer EBT? What roles do relevant social partners play in encouraging EBT? What suggestions do you have for enhancing EBT in the ICT sector? All the interviews were recorded and transcribed using an online, built-in recording and transcription feature. Additionally, I observed an online meeting in February 2024, hosted by the Private Sector Advisory Council Jobs Committee. The meeting aimed to propose industry-driven strategies to the Office of the President of the Philippines for enhancing EBT participation, with the goal of tripling EBT graduates by 2025. This meeting directly aligned with the research questions of this study. Approximately 11 stakeholders with diverse industry experiences attended the meeting, representing various organizations including IBPAP, AAP, the Second Congressional Commission on Education, the Philippine Business for Education, the National Teachers College, and the Philippine Constructors Association Inc. At the beginning of the meeting, following the guidance of Industry 1, who served as the facilitator, I introduced myself and briefly explained the purpose of my participation. During the meeting, I turned off my microphone so as not to interfere with their activities and conversations as an "observer as participant" (Merriam & Tisdell, 2016, p. 144). The meeting lasted for an hour, followed by an additional 30-minute debriefing session. The shared proposal slide deck, as well as a meeting note, was further analyzed to gain insights into the research questions.

3.3 Data Analysis

Data analysis occurred concurrently with data collection to identify preliminary themes that could be explored further in subsequent interviews (Flick, 2018). First, transcribed data was organized in personal Google Drive. Second, data was color-coded with notes, reflections, and questions to observe themes based on the theoretical framework for exploring employer engagement through the lens of private and collective goods. This was repeated until themes were identified and organized since data analysis in qualitative research is an iterative process (Merriam & Tisdell, 2016). Finally, codes were grouped into six themes and nine subthemes to answer the research question.

To ensure validity and reliability, data was gathered from diverse stakeholders and multiple sources for triangulation. Subsequently, some of the findings were further verified through email correspondence with the retired TESDA officer for member checking (Creswell & Creswell, 2018). Also, the findings are presented here with detailed and vivid descriptions (Merriam & Tisdell, 2016).

4 Findings

Currently, the primary source of recruiting ICT talent in the Philippines is, not surprisingly, university graduates (IT Educator). ICT students are often required to complete an internship before graduation, providing hands-on learning experience and ideally leading to full-time employment opportunities upon graduation (Micabalo et al., 2020). When asked if ICT talent development could be supplemented with TVET opportunities, interviewees emphatically stated that changing the current landscape would be a formidable task:

> *It would be a monumental challenge. Employers will never look for TVET for ICT talent. (Trainer)*

> *When we spoke to big companies in sectors like semiconductors and asked them whether they hire TESDA graduates, they said they wouldn't. (Coordinator 3)*

This then leads to the question: Why are employers not engaged in hiring and training their own ICT talent through EBT?

4.1 Perceived Challenges for Employer Engagement in EBT in the Philippines

This section explores the underlying reasons for the question above based on the two fundamental concepts of incentives (Chankseliani & Anuar, 2019): EBT perceived as a private and a collective good.

4.1.1 Structural Challenges that Hinder EBT as a Private Good

For companies to invest in EBT, they need to be convinced that it would be beneficial as a recruitment pipeline, yielding a positive return on investment. However, there is a lack of incentives and financial motivation for employer participation due to several structural reasons.

First, the wage requirement that doesn't reflect the lack of skills in learners works unfavourably for employers at the outset. Currently, companies participating in EBT are mandated to pay their trainees at least 75% of the minimum wage. This requirement aims to ensure that trainees "won't get abused as cheap laborer while they are already doing regular work" (TESDA 1). However, starting with 75% of the minimum wage from the beginning might be too high, especially for small and medium-sized companies (Advisor 1).

Second, the insufficient program duration to recoup employers' investment in training also poses a structural challenge in establishing EBT as a private good. The required lengths of EBT programs, as discussed previously, are relatively short (i.e., one to three months for Learnerships and three to six months for Apprenticeships). While the Dual Training System (DTS) allows for a longer training period of three to 18 months, the majority of companies

in the cost-benefit analysis study (Mapa et al., 2016) reported either training periods of less than three months (44%) or medium-duration training programs ranging from three to 12 months (37%), indicating that companies are generally not committed to longer training periods. While the mandates for short-term apprenticeships and learnerships are intended to protect trainees from being exploited as cheap labor, they have also created a "legal contradiction" (Advisor 1) that discourages companies from engaging in EBT due to the requirement to pay 75% of the minimum wage. This issue is particularly problematic for the ICT industry, where "the return on investment for highly technical trades requires longer training than in other fields" (Chamber 2).

Third, the inefficient tax benefit procedure impedes employers from engaging in EBT. While "there are ongoing discussions with the Bureau of Internal Revenue to ease compliance requirements" (TESDA 1), the current procedure is "not operational" (Advisor 1), which fails to serve as an incentive for EBT (Chamber 1 & Chamber 2).

Finally, a lack of trust in handling allowances for trainees in DTS programs is discouraging employers from investing in the DTS. Currently, when companies partner with training institutions for DTS, they are required to pay trainees' wages to their training partner. However, this arrangement works unfavorably for employers, as they "don't know if the school is actually giving it to the student or not, and prefer paying their trainees directly for transparency" (Chamber 1).

Besides these structural challenges, interviewees also highlighted concerns regarding poaching. This is a prevalent issue in countries where the culture of apprenticeships is lacking. However, in the Philippines, with a high rate of individuals seeking better working environments overseas (Eugenio, 2023; Philippines Statistics Authority, 2023), employers' apprehension about poaching appears to extend to the risk of losing their talent to neighboring countries with more advanced economies, particularly when individuals are trained for the ICT industry:

> *I mean that's always a chance that (…) because we want these certified trainings to be aligned with certification levels of other Asian countries, such as Singapore and Australia. So basically, if you're certified in this IT skill, you can actually go abroad. So, we're essentially building a workforce that is suited for work in Australia, Singapore. So, there is a danger. (Industry 2)*

Concern over poaching may be alleviated when EBT is perceived not only as a private good but also as a collective one that contributes to the talent pool of the broader industry. Yet, the findings also revealed challenges in such a perception developing in the Philippines, as discussed in the following section.

4.1.2 Barriers to Establishing EBT as a Collective Good in the Philippines

In countries with a strong apprenticeship tradition, social partners play a leading role in ensuring that employers' interests are collectively reflected in the design, assessment, and administration of apprenticeship training (Chankseliani & Anuar, 2019; OECD, 2022; Votinius & Rönnmar, 2021). However, the absence of such organized, coordinated efforts from social partners is perceived as the most prominent issue in establishing EBT:

> *In the Philippines, the role of private sectors is on paper, but TESDA has only one or two representatives from the chambers…They have competing chambers of commerce and industry. So, there is a fragmented situation… The private sector must speak with one voice. Otherwise, you won't have standards and recognized national certificates. In the Filipino model, skills development is within a matter of company, typically big companies… If TESDA doesn't have systematic cooperation with the private sector, this system will be always bureaucratic, not really demand-driven. (Coordinator 1)*

While TESDA involves industry organizations/experts in developing Training Regulations (TRs), there is currently no clear legal framework defining the private sector's rights and obligations in cooperation with TESDA (Advisor 1). This deficiency results in a lack of genuine private sector representation in enterprise-based TVET.

In addition, the current lengthy process of designing occupational standards hinders the establishment of EBT as a collective good. To position EBT as a tool for collectively developing the workforce, these standards are essential as foundational knowledge (Bliem et al., 2014; Euler, 2013; Gonon, 2014). TESDA administers TR design to provide industry standards. However, this process is time-consuming, often lasting two to three years. This timeframe cannot keep pace with the needs of the rapidly changing economy, particularly in the ICT industry:

> *The problem is the updating of Training Regulations. For example, with our in-company trainer program, we tried it to be a Training Regulation for TESDA. It took three years to have it developed. But until now, they have not trained any assessors, nor accredited any school for it. For this reason, it would be difficult to do ICT training programs with TESDA. (Chamber 1)*

This indicates that there should be a more flexible way of establishing TRs to expand EBT within the growing ICT economy for the nation.

Finally, given the challenges discussed so far, it is not surprising that there is a lack of shared vision and awareness of EBT among employers, especially in the ICT industry:

> *I think that the reason why you're seeing very low penetration on IT industry is primarily because EBT is not marketed enough by TESDA. I've been in this industry for long. We started working with TESDA three years ago. And then it was only last year that they said, can you help us increase the EBT? We are like, what's the EBT? (Industry 2)*

More fundamentally, there is a lack of shared understanding regarding the rationale for government-regulated EBT, as demonstrated in this question, "Why would TESDA incentivize companies when they are already engaging in it without the knowledge of receiving funding?" (Industry 2). Given that companies often tend to avoid government bureaucratic processes, this question may commonly arise. Interestingly, Industry 2 reached his own conclusion regarding the intended advantages of EBT for the industry:

> *My take is when they get registered, they should be mapped to a certain credential at the national level so that when they move from one company to another, that credential is accepted across the country. I think that's going to be the main reason for registration because the ultimate beneficiary would be the workforce. (Industry 2)*

This thought process aligns with the vision and rationale for expanding EBT. Then, what does it take to establish EBT for talent development, especially in ICT? Having explored the challenges for employer engagement in EBT, the next section explores the strategies for achieving this.

4.2 Strategies for Improving EBT for ICT Occupations

Having discussed the challenges of employer engagement in EBT, this section explores strategies for improving EBT, particularly in ICT occupations.

4.2.1 Enhancing EBT Design and Structure to Establish it as a Private Good

In the previous discussion, several structural barriers were highlighted that deter employer involvement in EBT. These include the complexity of claiming tax benefits, insufficient program durations to recoup investment in training, and the requirement to pay trainees 75% of the minimum wage from the outset, which may not align with a trainee's initial skill level and contribution. Encouragingly, TESDA is currently assessing some of these challenges (TESDA 1).

Generally, to ensure employers achieve a positive ROI when hiring and training less experienced individuals in TVET, implementing a progressive wage schedule and an extended training period is a widely accepted practice (International Labour Organization, 2023). Ensuring such a structure can also provide the essential foundation needed to position EBT as a tool for talent development by alleviating the initial financial burdens of hiring less experienced individuals and allowing sufficient time for skill development in ICT:

> *75% of the minimum wage on average is completely fine. It has something to do with avoiding cheap labor. But the problem is if companies, especially small and medium-sized, are conducting training, starting with 75% is too high. One suggestion is having the 75% on average with a progressive rate. The more productive they get, the higher the salary is. That's how the German system works. (Advisor 1)*

4.2.2 Systematic Involvement of Social Partners to Elevate EBT as a Collective Good

Interviewees also advocated for a complete overhaul of the role of social partners in EBT to establish their systematic involvement and foster increased collaboration with TESDA for the joint promotion of EBT.

Such an overhaul begins with designing industry standards and assessment. Industry 1 and 2 argued that TESDA's role should shift to focus on accrediting industry boards to represent relevant sectors and auditing their performance, while the industry boards would take responsibility for designing TRs and specifying industry certifications to be included in training where applicable. These redefined roles aim to streamline the TR design process, requiring a drastic shift in governance from the current structure, where industry experts merely serve in advisory roles. As previously mentioned, the current TR design process, led by TESDA, is lengthy and struggles to keep pace with rapidly evolving industry needs. Furthermore, the recognition of current credentials, National Certificates (NCs), varies across industries, leading many employers to question the value of pursuing them (Advisor 1 and Chamber 1). By allowing industry boards to lead the TR design process, it can be expedited, and the recognition of training and NCs can be improved. In fact, the high regard for German TVET certificates among employers is due to the strong involvement of chambers in their design and administration:

> *In Germany, experts from the industry participate as members of an examination board and really judge if the graduate has the competencies that they defined in the first place. So, employers are willing to hire those because they have been part of the process and then also trust in the certificates. So, in Germany, it's really a certificate issued by a specific sector chamber. (Coordinator 2)*

While the deployment of this approach requires more intense discussion between TESDA and industry boards, it is clear that a more innovative strategy is needed to significantly enhance the involvement of social partners in EBT and to respond promptly to the evolving market needs in ICT.

Industry 1 and Industry 2 also argued that the roles of industry boards should be expanded in implementing EBT within their industries. The proposed roles are extensive, including designing training programs, screening training participants, training the trainers, reporting on performance results, and even accrediting training providers. These expanded roles would enable industry boards to monitor programs more effectively by working directly with employers, thereby providing better quality control than TESDA.

4.2.3 Flexibility in Regulating EBT and Similar Programs

While the specifics of EBT are codified into law, making them challenging to modify quickly, TESDA recognizes the necessity of flexibility to facilitate engagement with employers, particularly in supporting those in emerging industries like IT-BPO. One such effort involves streamlining registration requirements for modern occupations that lack predefined TRs, coupled with the provision of scholarships (TESDA 3). This scholarship initiative, launched in 2006, has proven successful in promoting EBT-type programs:

> *We started a scholarship program to support skills development, especially for call center agents, because they were expanding. Later, this kind of model was expanded to other types of BPO companies. We support training even if there are no Training Regulations, especially for new skills. Also, since these companies are not used to bureaucratic requirements, there are very few requirements for registrations. (TESDA 1)*

This scholarship program has been widely successful, eventually leading to its formal establishment as the Tulong Trabaho (Help for Jobs) Fund in 2019. Furthermore, TESDA started to acknowledge industry-based certifications, especially within the ICT sector, as integral parts of their official assessments to align their programs with industry needs (TESDA 1).

Another instance of flexible EBT program design is the recognition of programs that take a dualized *approach*, exemplified by Dual Education Training (DET) programs. Supported by the German Federal Ministry for Economic Cooperation and Development, several chambers launched the K-12 Plus Initiative in 2013, partnering with high schools to offer TVET opportunities for juniors and seniors. The DET model, similar to the Dual Training System (DTS), combines classroom learning with on-the-job training but modified DTS requirements to allow high school students to meet academic obligations while undergoing workplace training. Additionally, it expanded on-the-job training from the existing mandate of 80 hours to 200 hours, accommodating employers' demand for more robust training. Consequently, the initial DET pilot in housekeeping, hospitality, and front office industries garnered enthusiastic employer support. Building on this success, Chamber 1 is now collaborating with the Analytics and AI Association of the Philippines to replicate this model in data analytics training programs.

However, the tripartite governance structure of the Philippine education system could complicate TVET establishment. As mentioned earlier, the education system is divided among three governing bodies, with primary and secondary education, tertiary education, and TVET under the auspices of separate entities of the Department of Education, the Commission on Higher Education, and TESDA, respectively. This necessitates that EBT stakeholders navigate these nuances when implementing EBT models, depending on the target audience:

> *With the DTS model, you have to register with TESDA. For the DET model, we talked to the Department of Education, which is in charge of the senior high school. If you are targeting people in higher education, like IT-BPO industry, you are most likely to need to collaborate with the Commission of Higher Education. (Chamber 1)*

While it is beyond this study's scope to examine the impact of the tripartite education structure on expanding employer engagement in EBT, it is reasonable to assume that coordinating with three different departments to implement dualized programs for various target groups can lead to fragmented efforts, rather than facilitating integrated pathways from high school to postsecondary opportunities.

4.2.4 Sector-Based Approach

Another crucial strategy for enhancing EBT involves targeting sectors that demand a highly skilled workforce and offer significant growth prospects. Presently, numerous industries in the Philippines rely on inexpensive labor. In markets abundant with low-cost labor, employers may lack motivation to invest in skills development:

> *Most private sectors in the Philippines simply rely on cheap labor. If you have this underlying business model, a corporate training model makes no sense. If you want to get the private sector on board, you will have to look for those sectors that have an eminent interest in quality improvement and moving up the value chain. (Coordinator 1)*

From this perspective, the IT-BPO industry has great potential and an eminent need for skills development through EBT.

5 Discussion

Employer engagement in TVET poses a common challenge in countries with limited TVET history. In this section, I discuss several recommendations for enhancing employer engagement in the ICT sector in the Philippines, which could potentially be applicable to other developing countries where there is a growing demand for more skilled workers to transition into technology-based industries with limited TVET history.

First, to ensure that EBT functions as a private good, a well-thought-out program design and structure are essential for employers to recognize a positive return on investment. Given the ICT sector's need for a longer period of foundational training to ensure success, it is crucial to establish a sufficient program duration, implement a reasonable wage increase schedule, and streamline both tax benefit and registration processes (Kuczera, 2017). Among current EBT models, only the DTS allows for an extended training period of up to 18 months.

Other models, such as Apprenticeships (three to six months) and Learnerships (up to three months), restrict the training duration to short- to mid-term, which does not adequately serve the ICT sector's skills development needs. There should be thoughtful consideration of these programs' structure to enable employers to use them as effective talent development strategies. For example, extending the duration of apprenticeships to at least one year, along with a mandate for gradual wage increases, could be beneficial. However, this extension must be accompanied by robust monitoring to ensure the quality of learning and prevent the misuse of apprenticeships as a source of cheap labor.

Second, to ensure that EBT functions as a collective good, it is crucial to systematically involve social partners, not just in advisory roles, but as *decision-makers* in various aspects of TVET design and implementation. A streamlined process for engaging social partners is particularly important in the fast-evolving ICT sector, where updates to occupational standards and assessments may be required more frequently than in other industries. This study suggests the potential accreditation of representative industry boards to take responsibility for designing occupational standards and, where appropriate, utilizing industry certificates, while TESDA continues to review, approve, and audit these processes. This would require significant changes in governance, including the establishment of a system to select representative industry boards and a new quality assurance framework to provide necessary checks and balances. When thoughtfully implemented, this new governance structure could also be highly effective in securing employer buy-in. With increased ownership and involvement in TVET design, industry boards could recruit employers to offer EBT opportunities, serving as intermediaries. The roles of intermediaries often go beyond those of traditional social partners by connecting key stakeholders, especially employers and apprentices, to make apprenticeships happen (ILO, 2019). In fact, countries without a strong history of employer participation in TVET often rely on intermediaries to engage employers. They may persuade employers to offer training, manage the necessary paperwork to streamline the hiring process, and even act as third-party employers for apprentices (Craig, 2023). Given the demonstrated interest of industry boards in partnering with TESDA to expand EBT in the ICT sector, TESDA should consider an innovative, streamlined approach to engaging social partners in expanded roles for the design and implementation of EBT.

Third, recognizing and fostering employer engagement in various forms of work-based learning is crucial. As Coordinator 1 noted, "people nowadays will need cooperative vocational training, rather than dual, indicating that private sector involvement is already in progress". This perspective underscores the importance of a system that allows employers to engage in new industries, even when occupational standards have yet to be established. While streamlining the TR design process through increased involvement of social partners is vital, establishing new standards in emerging industries still takes time. To boost employer engagement in the ICT sector, a flexible system that can quickly respond to market needs is

essential. In this regard, TESDA's scholarship program for training in advanced industries is a notable success and a step forward. TESDA should consider expanding this initiative by allocating additional funding for scholarships, particularly targeting skills development in the IT-BPO sectors (Industry 1 & 2).

The key insights discussed so far for improving employer engagement in EBT in the Philippines are organized in Figure 1 below.

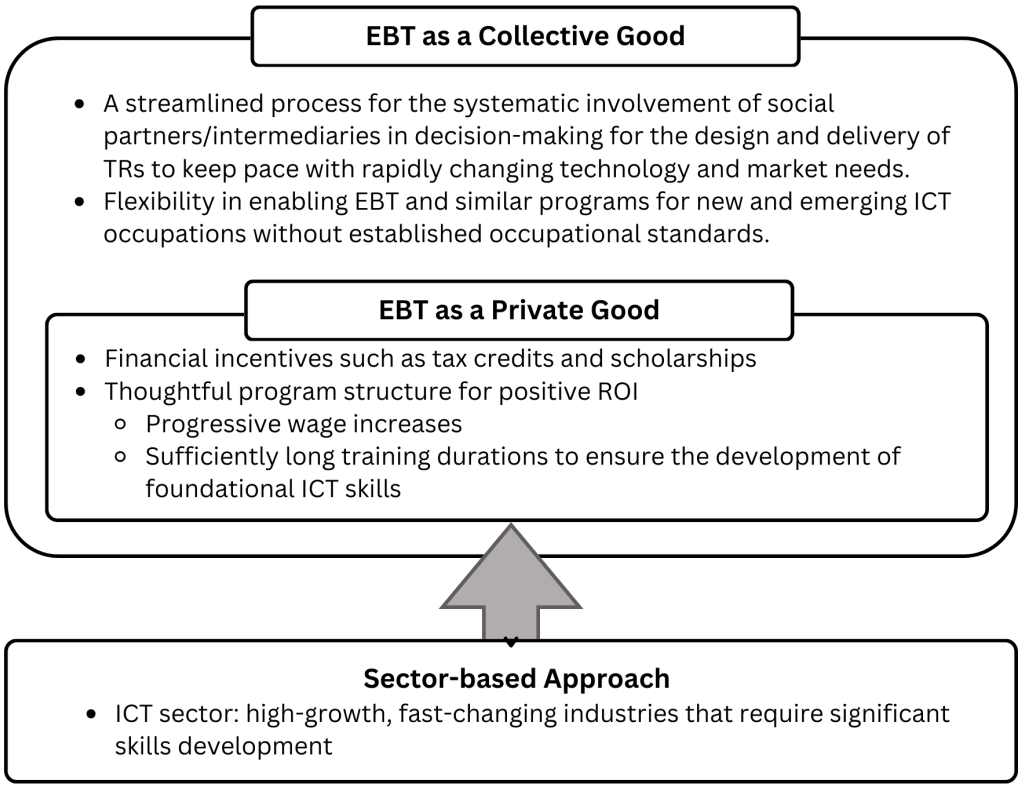

Figure 1: Strategies for Employer Engagement in EBT Within the ICT Sector

Note. This figure is the author's summary of the study findings, organized around the concepts of incentives for employer engagement in TVET (Chankseliani & Anuar 2019).

6 Conclusion

This study presents several implications. For research, it contributes to the existing body of knowledge on employer engagement in TVET by adding insights in the Filipino context. Notably, it expands on the conceptual framework proposed by Chankseliani and Anuar (2019),

offering more detailed and context-specific insights that can serve as a robust foundation for future studies exploring similar phenomena. This study also offers policy recommendations that can be adapted to improve employer engagement in TVET in the Philippines and potentially in contexts of developing countries where there is a growing demand for more skilled workers to transition into technology-based industries.

However, it is important to acknowledge the study's limitations. This study did not delve deeply into the dynamics of engaging social partners in the Philippines. While this research highlights the crucial role of these stakeholders in fostering employer engagement in the ICT sector, and captured innovative suggestions from the representative industry boards, it did not further explore responses on these suggestions from other stakeholders, such as TESDA. This limitation partly stems from the fact that these suggestions were newly developed by the industry boards and intended to be proposed to TESDA. Similarly, some conflicting perspectives on the nature of social partner relationships were not examined in detail. For example, while Coordinator 1, a German TVET expert, described the relationship among Filipino chambers as competitive, Chamber 1 shared experiences of successful collaboration with other chambers to implement a new dual model.

Overall, as an exploratory study of EBT, this research broadly captures strategies for expanding EBT in the ICT sector. However, a more in-depth examination of social partner engagement was lacking, highlighting a valuable area for future research. I recommend that future studies focus on the dynamics of partnerships among social partners and intermediaries in the Philippines, examining incentives and governance strategies to engage them collectively in designing and even delivering EBT. While meaningful changes in a social system do not occur overnight, aligning policy with partnerships tailored to the sociocultural context can foster impactful progress in the Philippine TVET system.

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Ethics Statement

The author collected and handled data in adherence to ethical standards, with all interviews conducted voluntarily and informed consent obtained.

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