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INCIDENCE OF JOB MISMATCH AMONG TVL GRADUATES IN BUTUAN CITY, PHILIPPINES

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Abstract

Landing a job is one of the expected outcomes behind the huge investment of Philippine education in the implementation of Technical Vocation and Livelihood (TVL). But job far from TVL specialization is a failure to the curriculum. This study assesses the incidence of job mismatch among employed pioneering batches (2018 and 2019) of TVL graduates in Butuan, City Philippines. Factors of job mismatch are also analyzed. A total of 269 employed TVL graduates were surveyed using a researcher-made questionnaire. Statistical analysis reveals a 64% (171) mismatch incidence. Logistic regression analysis further shows that national certification, faculty and instruction, job experience, workers compensation, and family support are significant factors to job mismatch incidence. The study concludes that mismatch between job and skill is highly evident. The findings of this study serve as bases in the creation of intervention initiatives that will improve the implementation of the TVL program.

Keywords

Job Mismatch, TVL Specialization, Technical Vocational, Livelihood Program

1. Introduction

On the 15th day of May 2013, the Philippine government, through the Department of Education (DepEd), implemented the K to 12 curricula (Republic Act 10533, 2013). An estimated budget of \$4.410 billion from 2014 to 2019 was allocated for the senior high school programs, where approximately 10.7 % was exclusively disbursed for Technical-Vocational Livelihood (TVL) education (ADB, 2014 & ADB, 2019). TVL program aims to progress human capital development to attain an inclusive increase economically and revitalize the competitiveness in the Philippines. Technical-Vocational and Livelihood education has a strong bearing on the development of the country by equipping young adults for employment, which will consequently lead to (i) increased educational attainment, (ii) increased employment, and (iii) better wages (Deped, 2016; Malipot, 2019; Colcol, 2019, & Rashid et al., 2019).

Employability after Senior High School is also promised in the K to 12 curricula. Underprivileged junior high school graduates are encouraged to pursue the TVL course to enhance their post-school employability (Ismail & Mohammed, 2015; Bacarra, 2016 & Pajares et al., 2018). According to the Asian Development Bank (ADB, 2014 & ADB, 2015), the investment in the TVL program could increase the income for employees, and improve the probability of employment to 56%.

Studying the employability of Filipino graduates is essential in determining the country's educational system effectiveness. Many researchers have already published dozens of articles related to employment after college or high school. However, little is positioned at job mismatch, particularly among Technical-Vocational Livelihood (TVL) graduates. Job mismatch refers to the non-alignment between the TVL specialization and the nature of the job after graduation (Grant, M., 2016; Global Agenda Council on Employment 2014; Laguador et al., 2015; & Cook, 2017).

Technical-Vocational Livelihood (TVL) program in the country started to produce graduates in 2018. Another batch succeeded in 2019. Expectedly, the number of TVL graduates will increase year by year. Hence it is essential to understand the incidence of mismatch and its underlying factors. These factors are national certification (TESDA, 2014 & TESDA, 2019), faculty and instructional quality (Chavez et al., 2016), job experience (Robert, 2014, and Grunau & Pecoraro, 2017), work

compensation (Ghignoni & Verashchagina, 2014, & Tarat, 2019) and family support (Mansour & Tremblay, 2016, & Jennings, et al., 2016).

This research considers 2018 and 2019 TVL and employed graduates from Butuan City Division as study respondents. Butuan is one of the progressive cities in the country where the economy mainly relies on services (PSA, 2019). The study results show potential bases and inputs for the development of actions and enhancement measures towards the fullness of the TVL program's success.

2. Theoretical Framework

2.1 Human Capital Theory

The theoretical importance of the education-job match clarifies the issue of education-job matching; it provides more refining ideas about the different reasons and relationships for education-job matches (Witte and Kalleberg, 1995). Human capital theory (Becker, 1964) gives a more precise explanation of the factors and reasons for education mismatch. It argues that the skills and competence taught in school signify the human capital, and stresses that investing in human capital produces productivity and high returns in education. The theory also emphasizes a more unobstructed view of the school as an institution to provide and train people the necessary skills that make them more productive; thus, this individual has the best chance of acquiring a job and receives a reasonable wage (Allen and De Wert, 2007). Education mismatch, on the other hand, is projected as a big part of being efficient in the labor market, supplying human capital means that there is an excellent chance of promotion and match the human capital that a particular person possesses (Chiswick and Miller 2007). Scholars consider the human capital theory crucial in formulating framework, especially in different economic growth (Sweetland, 1996), he also added that imposes that the human capital theory not only isolates on high return and compensation with education but also considers the other factors such as social benefits like a pension plan, job satisfaction, work immersion, and quality of life when investing education-job.

The other idea to consider in formulating concept about the study is the job competition model- this model takes from very different views of human capital theory. The job competition uses job characteristics such as the employment status that determines the wages of the employee, definitely not the education attainment of the worker (Thurow, 1975). The job competition thoroughly explains that mismatch occurs only when education is just an additional requirement in applying for a job.

2.2 Job Matching Theory

The job-matching theory is anchored on the idea that the labor market comprises of jobs that have different experience and expertise, and workers with different experience level (Jovanovic 1979). The most skilled position is expectedly assigned to the most experienced worker, and the mismatched occurs when the skilled supply position is higher than the skilled worker vice versa (Sorenson and Kalleberg 1981; Jovanovic 1979). Van de Werfhorst (2002) highlights that the job-matching theory and education-job match are beneficial to employee and employer. Most workers prefer that match because they feel empowered to their job and able to utilize the skills (Sorenson and Kalleberg 1981).

2.3 Credentialism Theory

The credential theory argues that a senior high school education equips the student with the essential skills that can be used in applying for a job. The credentials point of view skills used in acquiring a situation, the employer perceived education as a factor of the trainability and effectivity of the employees (Collins, 1979). He also emphasized credentials obtained by a senior high school graduate, especially top credentials, which are considered by employers when hiring employees. Still, the credentials do not necessarily represent the worth of the employee. The job applicant spending extra years in school has fewer chances to be accepted in the job than the applicant spending years on specified years in school.

An empirical study for the credential theory supported that the return for senior high school is deteriorating. This idea of having credentials a guarantee for obtaining a good job and the educational requirement only increases unemployment (Livingstone, 1998; see also Walters, 2004). However, Livingstone (1998) argued that secondary education graduates need to pursue a higher degree of education to acquire respectable jobs.

3. Materials and Methods

3.1 Participants

Participants were the 269 employed TVL graduates from batch 2018 and 2019 in the division of Butuan city. The said number of employed graduates was derived from the returned questionnaires through personal and online surveys.

3.2 Research Instrument

A researcher-made questionnaire served as the main instrument of the study. The content was validated by a series of experts in the field. A Cronbach’s alpha of 0.85 suggested that items in the questionnaire show strong internal consistency. Hence, the study instrument is reliable.

3.3 Data Gathering Procedure

Actual and online surveys were conducted to all schools offering TVL in Butuan city. A total of 269 employed graduates completely returned questionnaires. Data were then encoded and analyzed using the student version of Statistical Packages for Social Sciences (SPSS). Further, ethical research procedures are strictly complied with within the entire data gathering activities. The researcher clarified that the participation of qualified respondents is voluntary, with the assurance that all data will be kept confidential.

3.4 Data Analysis

Frequency and percentage are used to determine the incidence of job mismatch. Logistic regression analysis was further utilized to investigate significant factors to the incidence of job mismatch.

4. Analysis

This section presents the analysis and interpretation of data in response to the research questions of the study. Key findings are also coupled with suitable discussions and realistic implications.

4.1 Incidence of Job Mismatch

This part of the analysis section shows the distribution of respondents across actual employment versus completed TVL specialization. The incidence of job mismatch is then presented.

Table 1: *Cross-Tabulation Results between Employment and TVL Specialization of Respondents*

Employment	TVL Specialization Obtained				Total
	Industrial Arts	Home Economics	Agri-Fishery	Information Communications and Technology	
Manufacturing	8 (6)	5 (5)	4 (3)	6 (4)	23 (18)
Agri-Business Firm	5 (2)	3 (2)	8 (2)	7 (3)	23 (9)
Real Estate	3 (2)	2 (2)	7 (7)	0 (0)	12 (11)
Fastfood chain	10 (9)	10 (9)	11 (11)	7 (7)	38 (36)

Shopping mall management	12 (12)	7 (7)	18 (18)	9 (9)	46 (46)
Wholesale and retail distribution	10 (10)	9 (9)	13 (13)	6 (6)	38 (38)
Technician, Electricity, Gas, and Water supply services	7 (0)	6 (0)	10 (2)	10 (2)	33 (4)
Hotel and restaurant and resort	6 (1)	7 (0)	8 (0)	9 (1)	30 (2)
Shipping lines and Computer programmer	2 (1)	3 (1)	2 (1)	0 (0)	7 (3)
LGU and government position	0 (0)	1 (1)	0 (0)	1 (0)	2 (1)
Bread & Pastry Industry	2 (1)	5 (1)	3 (0)	7 (1)	17 (3)
Total	65	58	84	62	269
Mismatch	44	37	57	33	171
Percentage of Mismatch	68%	64%	68%	53%	64%

Numbers in each cell represent for the frequency of TVL graduates with the corresponding incidence (enclosed with parenthesis) of mismatch

Table 1 shows the cross-tabulation between employment and TVL specialization among the graduates of 2018 and 2019. Mismatches between TVL specialization and landed jobs are evident. Agri-fishery and Industrial arts graduates both posit the most significant mismatch percentage of 68%. This is followed by 64% and 53% mismatches from graduates of home economics and ICT, respectively. Consequently, the overall mismatch accounted for exactly 64% or 171 out of 269 graduates.

In Butuan City, the continuing growth of business establishments opens employment opportunities. TVL graduates who ventured on shopping mall management, fast-food chain, and wholesale and retail businesses are unable to use their TVL specializations. It showed from Table 1 that all graduates who worked in shopping malls do not apply their specialty. The same trend of observation is also evident in other types of employment. This incidence of job mismatch may be attributed to the scarcity of job placements that are skill-specific. Hence, along with the implementation of the TVL program, DepEd should consider that TVL specializations shall fit the demands of the neighboring industries.

4.2 Factors to Incidence of Job Mismatch

Table 2: Multiple Logistic Regression Results on the Mismatch Occurrence against Potential Factors

Factors	B	P-value	Exp(B)	Model Classification	Nagelkerke R Square	Omnibus Test P-value
National Certification	1.108	p<0.01	3.028	81.80%	54.30%	p<0.01
Faculty and Instruction	-1.596	p<0.02	0.203			
Job Experience	3.796	p<0.03	44.506			
Compensation	1.219	p<0.04	3.382			
Family Support	-0.666	p<0.05	0.514			
Constant	-0.557	p<0.01	0.573			

Note: SPSS coding 1-match, 0-mismatch and p<0.01 means that p-value is lesser than 0.01

Table 2 shows a best-fit logistic regression model (omnibus test with p<0.01) or mismatch considering five factors, namely; national certification, teacher and instruction, job experience, compensation, and family. The said model posits a classification power of 81.80%, with a total variance explained of 54.30%. This information supports that the model firmly fitted the given data. As displayed in a similar table, smaller p-values suggest that all factors significantly related to the occurrence of mismatch between TVL specialization and employment. Detailed discussions on the relationship between the independent variables towards mismatch are presented in the next paragraph.

Obtaining national certification (NC) on a competency-based assessment from TESDA shows a positive contribution to employment matching (Manalo et al., 2018). Students who are NC holders possess an odds ratio (Exp (B)) of 3.028. This further implies that NC holders are three times more likely to land a job aligned with their specialization than the holders are. Faculty and instruction are coupled with a relatively small odds ratio of 0.203. This idea reflects that students who experienced employment matching perceived TVL faculty and instruction poorly while other students perceived the contrary. Among the five variables, job experience exposed the most significant odds ratio of 44.506, which means that students who have more job experiences are 45 times as likely to land jobs vertically related to the field of specialization than those with lesser job experience. As substantiated by an odds ratio of 3.382, greener work compensation increases by almost three times the possibility of reaping job matches. Further, family support is scored with the odds ratio of 0.573, which empirically implies that student having low-income family support is twice as likely to experience job mismatch.

5. Conclusions

The study concludes that mismatch between TVL specialization graduates and employment is highly evident. Current careers pursued by pioneering graduates from the TVL program, unfortunately, do not necessarily require skills acquired from any TVL specialization. This situation portrayed a comprehensive picture regarding the government's huge investment in TVL education yet a high job mismatch rate of 64%. To address the apparent problem on the job mismatch, factors underpinning such mismatches namely national certification, faculty and instruction, job experience, and workers compensation should be considered in the designing of intervention or action plans. The Philippine Department of Education can further benchmark on the findings of this study so that issues will be appropriately addressed and the investment will not be wasted.

Author Contributions

Jondie Mark Autentico made the drafts, designed the study, collected data, performed data analysis, revised, and finalized the paper. Gilbert Alerta is currently a statistics and research teacher at the Philippine Science High School Caraga Region Campus. He also designs the study survey, analyses the gathered data, and synthesized the literature review.

Declaration of Interest

The authors disclose that there is no form of conflict interest in this study.

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