

#### Article

# Labor Market Information System: A Review of Some Practices

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#### Abstract

Accurate and up-to-date labor market information system, which is conducted with the involvement of public decision markers, technical and vocational education and training (TVET) practitioners, employers and their associations, employee associations, training providers and learners, is an essential feature of a successful TVET system. Similarly, engagement of multiple TVET stakeholders is an important component of overall skills development system which leads to developing responsive labor market skill needs, supporting prioritized economic sectors to foster dialogue among the stakeholders to maintain balance demand and supply of labor right. It enhances integration of labor market requirements in the overall training and skills development cycle and ensures that trainees acquire market-relevant skills for their employability and self-employment. In the context of changing labor market conditions, collecting, compiling, analyzing, and disseminating current and future needs from the TVET customers can support better matching for training and employment. As labor markets are constantly evolving and changing, labor market analysis therefore needs to be conducted on a regular basis so that real time labor market information can be obtained. But the active and regular labor market information process is underexplored in a developing country like Nepal. The main objective of the article is to explore the common practices of Nepali labor market information system and the problems faced by the TVET system. Thus, the article addresses the information gap by diving deep into the clear understanding of labor market, practices of labor market information processes in some South Asian countries, including Nepal and issues and challenges facing the Nepali labor market information process.

*Keywords:* labor market information, training needs assessment, rapid market appraisal, employer engagement, industry-institute linkage.

#### Introduction

Assessing real needs for qualifications and skills of business, industry, or community is one of the most important tasks of any technical and vocational education and training (TVET) program. The TVET programs are only successful when the needs assessors have managed to identify the real demand on the labor market. The training programs, which focus on the needs of users, will be more successful (International Labour Organization [ILO], 2016). Thus, conducting some form of a labor market assessment is usually the first step while designing a TVET program. As

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the private sector is the major employer of TVET graduates, it is imperative that employers have a key role in the labor market information (LMI) activities. Moreover, it is widely believed that the major contributing factor for the mismatch between demand and supply of skills in the labor market is the lack of decisive and institutional involvement of private sector stakeholders (Colombo Plan Staff College [CPSC], 1998).

Real time labor market information is essential for different TVET actors. For policy makers in government, it provides information- on which to base TVET policy, and to allocate resources as per skills needs of various economic sectors. For TVET institutions, it enables them to know which occupations are in demand and, therefore, which training programs to implement. It also facilitates them to plan curricula that better reflect the needs of local economy. For job seekers, it helps them make informed decisions on training and identify career pathways that suit their skills and interests. For business and industry, it provides information for making decisions on recruitment, business expansion, diversification. relocation. employee skills development, etc.

In Nepal, the labor market for domestic workers is made up of local labor market in national, province, districts and towns, while the migrant labor market for the foreign job aspirants. It operates at economic sectorial levels and embrace stakeholders from all areas of skills development ecosystem. Stakeholders are drawn from public and private employment services, training providers, employers and employer associations, employee associations, nongovernment organizations and civil society groups. The main objective of this article is to examine the situation of collaborative approaches and practices of engagement of employers and the communities in the assessment of labor market information (LMI) process. It is primarily based on review of the existing practices made in Nepali labor market information process and desk review of South Asian countries practices in the labor market information process. In addition, as a TVET practitioner, I have also reflected my own practical experiences, challenges and lessons learnt throughout my professional career on conducting labor market information study.

## Understanding Labor Market Information

For a deeper understanding of LMI processes, I would refer to the following sources for the operational definition of labor market information:

Rihova (2016) defines LMI as,

any information concerning the size and composition of the labour market or any part of the labour market, the way it or any part of it functions, its problems, the opportunities which may be available to it, and the employment-related intentions or aspirations of those who are part of it.

LMI is defined in the UNEVOC TVETpedia glossary (2022) as,

collecting, analysing and disseminating quantitative and qualitative information related to the demand for and supply of labour. It is the process of data analysis to determine whether shortages are skill shortages (entire jobs) or skill gaps (deficiencies in the skills sets of existing workers), and whether skills development is the best solution to the shortage. It also states that a LMI system includes career information, advice, and placement services, as well as data on shortages and mismatches, occupational profiles and skills under-utilization.

According to Finch and Crunkilton (1999) in their classic workbook on Curriculum Development in Vocational and Technical Education, employer surveys are probably widely used approach in determining the needs or demands of business and industry. The approach is quite simple: contact an employer and obtain information about their present labor status and future projected labor needs.

Caves and Renold (2016) developed the rubric of the employer engagement in the design phase of the TVET system as "no engagement in pre-training phase to ad hoc or informal engagement in needs analysis, curriculum design, and training materials development to formal engagement without power to formal engagement with two times power".

## **Practices of Labor Market Information in Some of South Asian Countries**

Here, I portray practices of LMI processes in some South Asian countries, such as Bangladesh, Bhutan, India, the Maldives, Pakistan, and Sri Lanka. These findings have been summarized by reviewing available reports of the respective countries. The rationale behind selecting some South Asian countries is simply because of similar context of these to Nepal, economically and socially.

Several laudable initiatives have been taken in Bangladesh in employer engagement in the labor market information analysis process. As garment industry is one of the most important and blooming industries in the country, the Bangladesh Garment Manufacturers and Exporters Associations has a separate unit to conduct regular labor market analysis for domestic as well as destination countries for migrant workers. Underprivileged Children's Educational Programs (UCEP) have developed strong linkages with industry for the needs analysis of the human resources and job placement of the graduates. The Chittagong Skills Development Centre (CSDC) is an industryled non-profit skills training centre aiming to grow the skilled labor pool by providing highquality, cost-effective, value-added skills training to its corporate members and other private companies (Bangladesh Garment Manufactures and Exporters Associations, 2013).

In Bhutan, the Labour Market Information and Research Division (LMIRD) of the Department of Employment and Human Resources, Ministry of Labour and Human Resources has developed Bhutan Labour Market Information System in the country. The Division releases a Labour Market Information Bulletin (LMIB) every year. The Bulletin is intended to help both the supply side (job seekers and workers) and the demand side (employers) understand the current labor market situation and be informed about various opportunities in the labor market (Department of Employment and Human Resource, 2020).

In India, business and industry work together with government in the National Skills Development Corporation (NSDC) for the development of TVET sector in the country. NSDC is a not-for-profit, private

limited company in which the government holds 49% of the share capital and the private sector owns the remaining 51%. NSDC works closely with Ministry of Skill Development and Entrepreneurship and the private sector. It plans to set up a LMI system - an online system that provides qualitative and quantitative information on the labor market. It introduced Sector Skill Councils (SSCs), industry-led TVET institutions, and workplace-based training. Till date, NSDC has approved 38 Sector Skill Councils and Private Sector Support Units. NSDC provides governance, monitoring and performance improvement support. There are over 600 Corporate Representatives in the Governing Councils of these SSCs. They conduct skill gap analyses and identify skills development needs (National Skill Development Corporation, 2018).

The Maldives has introduced Employment Sector Councils (ESC) during the implementation of Employment and Skills Training Program (ESTP) to ensure industry involvement to identify skills gaps and prioritise skills and training needs, and based on these skills and training needs, competency standards and training programs are defined in collaboration with training providers and the government. Five councils have been successfully formed and put in place for the priority sectors - tourism, fisheries, construction, social services and transport. During the project implementation, ESC members had introductory 58 training on occupational skills analysis and competency standards development, which significantly improved ESC performance. According to the final report published by Asian Development Bank (ADB, 2012), the ESCs had identified 40 occupations

for training programs, compared with the 24 originally planned. Around 26 national competency standards have been approved by the ESCs and endorsed by The Maldives Qualifications Authority (MQA); ESC identified skills gaps and training needs in 10 critical qualifications per sector. The ESCs are mandated to approve the competency standards (Rothboeck, 2012).

Another South Asian regional example in which collaboration between the public and private sectors is being forged by the National Skills Information System (NSIS) in Pakistan with the support of the EU-funded TVET Sector Support Program and the National Vocational and Technical Training Commission (NVATTC). NSIS seeks to collect data from the private sector on market demand for skills and to disseminate information using a digital platform (NAVTTC 2015). In order to have job related information, Pakistan is also practicing Job Placement and Career Counselling (JPCC), an agency to link business, industry and provincial TVET authorities and the re-upon at the federal level. This is still a work-inprogress (Khan, Schleber & Iqbal, 2019). Similarly, TVET Reform Support Program has supported the development of a pilot scheme, the Cooperative Vocational Training (CVT) in close collaboration with public and private stakeholders. Within this scheme, enterprises (employers), training institutes and TVET authorities share the responsibility for labor market assessment (planning) and conduct of vocational training. The CVT scheme addresses the need of demandoriented training by combining vocational courses in training institutions with on-thejob training in enterprises.

A good practice is also found in Sri Lanka: There are joint ventures between the government and the private sector, including the Ceylon German Technical Training Institution, which focuses on technology related to the automobile industry and other technical trades, which has strong links with industry (Report of Skills Sector Development Programme of Sri Lanka, 2019). According to The Tertiary and Vocational Education Policy (2016), training needs assessment will be done based on labor market analysis through the establishment of a Labour Market Advisory and Coordinating Committee (LMACC) that includes ministries and national bodies, as well as the Employers Federation and Chambers of Commerce (Ceylon German Technical Training Institution, 2016). TVET Policies for Employment and Entrepreneurship (2017) have formed private sector led Sector Skills Councils. Skills councils function as a platform between the relevant industry and the training sector to ensure development of industry relevant skilled personnel taking into account the labour market demand (ADB, 2012).

### Some Practices of Labor Market Information in Nepal

The practices of assessing labor market at the need of the human resources for employers and communities started long ago in Nepal. At the crossroad of professional careers as a TVET practitioner, I found several practices and initiations in conducting labor market assessment in the Nepali TVET system. Some of them are briefly discussed below.

Five national level employer associations: FederationofNepaleseChamberofCommerce

and Industry (FNCCI), Confederation of Nepalese Industries (CNI), Federation of Nepalese Cottage and Small Industries (FNCSI), Hotel Association of Nepal (HAN), and Federation of Contractors Association of Nepal (FCAN) have jointly established an Employer-led Labour Market Information Secretariat (ELMS) in the premises of FNCCI in December 2020 with the support of Dakchyata Project which was managed by the British Council Nepal and funded by the European Union Nepal. The main objective of ELMS is to create a sustainable model for employer associations to conduct longitudinal harmonised. and holistic demand side of labor market information survey in the country. Thus, ELMS captures employer's demand for current and future skills need, develops employers' capacity and confidence in designing and delivering LMI studies, fosters a shared standard classification of occupations, and supports employers in whetting a policy and advocacy role for advancement of TVET policy related to labor market. The belief of engaging and sitting in the driving seat for the employer associations themselves of the assignment is that employers are better placed to assess the need of skilled workers than anyone else. The philosophy of the practice is to engage employers and employer associations in an area of forecasting labor market skill needs in the respective sectors themselves. Thus, ELMS provides a forum through which employers can play a pivotal role in the identification of "demand side" skills and qualifications requirement in three priority sectors (Dakchyata ELMS Report, 2022).

SKILLS Project under UNDP established Management Information System (MIS) of the labor market in 2017, which deals with the supply side of the labor market information in the country. MIS of the labor market covered the annual production of the skilled human resources from the Council for Technical Education and Vocational Training (CTEVT), CTEVT- affiliated private training providers as well as the donor funded TVET programs. Since this is the supply side system, one way of the TVET labor market information has been maintained.

In 2016, CTEVT has conducted a labor market survey to assess the emerging needs of technical human resources in the country (CTEVT, 2016). It was an employer survey. The survey has come up with highly demanded occupations in the economic sectors and the sources of the information are the employers themselves in the related sectors.

The Embassy of Switzerland, Nepal had conducted an analysis of selected industry and service sectors in Nepal in 2014. The objectives of the study were to explore employment opportunities primarily for trained people, who have entry level skills to start working, to assess existing and new occupations/skills in demand, and review stakeholders and collaboration potentials for training and employment. The sub/sectors of the study included construction, electrical, mechanical, and automobile, computer and IT, tourism, education, health and banking and insurance (The Embassy of Switzerland, 2014).

In addition, Central Bureau of Statistics and National Planning Commission conduct a labor force survey every four years, the most recent in 2019. In a highly dynamic labor market, the usefulness of the data for federal and provincial decision-makers is somewhat declined. The Employment Information Centers under Department of Labor also exist. Their role is largely restricted to preparing profiles of unemployed individuals. It is recognized that they are facing resources constraints, thereby causing distrust in their information, which may be out-of-date, while responses to specific requests can be delayed.

During the 1980s, the National Education Committee (NEC) under the Ministry of Education had conducted area-based assessment of context, input, process and product (CIPP) developed by Stufflebeam (1966) before selecting TVET programs and establishment of technical schools. As a result of CIPP assessment, Karnali Technical School was established in Jumla, while Jiri Technical School in Dolakha, Lahan Technical School in Siraha, Uttarpani Technical School in Dhankuta with respective TVET programs. Stufflebeam explained CIPP as a comprehensive framework for guiding the formative and summative assessment of proposed projects before making the decision of setting up training institutions. The roles of the National Education Committee regarding technical education and vocational training were then handed over to the Directorate of Technical Education and Vocational Training (DTEVT) under the Ministry of Education. With the establishment of CTEVT in 1989, it continued the same process while extending the establishment of the technical schools in other parts of the country, such as for Rapti Technical School in Dang, Bheri Technical School in Banke, Seti Technical School in Doti, Dhaulagiri Technical School in Mustang (Collum & Ramse, 2004).

Informally, most of the donor-funded private training providers conduct local level training

needs assessment before implementing the technical training programs in order to verify whether the planned technical training programs have needs of the actual demands in the local labor market factored in properly. Some do this in the name of Training Needs Assessment (TNA) where needs assessors visit communities, government and nongovernment offices and the local industries in order to identify the current situation and the needs of the skilled workers for the coming days.

At the local level, identifying local skills demand and customizing learning resources to meet those needs help to make training more relevant for local enterprises. For these reasons, some do this in the name of Rapid Market Appraisal (RMA) surveys. Under such surveys, the number of skilled workers available at present and number of skilled workers needed in specific occupations in the predetermined areas are identified, including additional skills of the workers as preferred by employers and communities where present occupational interests of local youths are also assessed. In this appraisal, employers and communities are directly involved in providing labor market information (Shrestha, 2016).

Some big business houses have their own training units and they conduct performance gap analysis of their employees when new technology and equipment are launched to train their employees accordingly.

Some non-government organizations apply Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA) to assess the needs of the communities in order to design and implement their livelihood training programs. The main sources of the information for the studies are from the local communities, lead farmers, teachers and local micro enterprises.

Currently, there are a number of private job portals in which labor market information on the demand side can be found- JobNepal.com, Rojgari.com, Merojob.com, Hamrobazar. com, etc.

## Issues and Challenges of Nepali Labor Market Information Process

There are several issues, problems, and challenges in assessing the labor market information in the country. I have captured and elaborated some of them from my own practical experiences below.

At general level, there is absence of a robust national level labor market information system in Nepal. The Central Bureau of Statistics and the National Planning Commission generate labor related data which are of little use, mainly due to lack of sufficient resources allocated to it. The personnel coming from outside the industrial system strive to assess the needs of the labor market for the human resource requirement of the industrial sector. There is lack of knowledge and skills of the differences between the industrial and human resource development aspects. Similarly, there is no involvement of the private sector in the process either. Thus, these data lack realtime industry-specific, occupation specific and level of occupation specific information, which ultimately results in limited use.

During local labor market assessment to ascertain the actual need of the workers by the industries, the ambitious and hypothetical figures are normally shared with the need assessors, which are often not in tune with reality- the real needs of the skilled workers for the industries. This becomes unrealistic data for the policy makers and does not reflect the real-time data which therefore cannot be used as solid basis for human resource development.

Assessment of labor market information has been practiced extensively by the organizations and the training providers in Nepal for designing and organizing their long-term, short-term and livelihood training programs. Since these organizations practice a just-in-time training philosophy, the labor market assessment has not been used very much to meet the training needs that project future in a systematic way.

There are no unified tools developed for conducting labor market survey in Nepal. Different agencies develop the tools based on their own needs and keep them only for their purposes. These agencies rarely share and disseminate the information for the public benefit.

There are a number of national level business and industry associations, such as Federation of Nepalese Chamber of Commerce and Industry (FNCCI), Confederation of Nepalese Industries (CNI), Federation of Nepalese Cottage and Small Industries (FNCSI), etc. in Nepal. Major national level associations have their own commodity associations within these structures and they look mostly after the needs of the sector they represent. Besides these, there are also sector-based associations, such as Hotel Association of Nepal (HAN), and Federation of Contractors Association of Nepal (FCAN). Despite their long existence in the country, limited contributions are seen in the real ground in

making any survey of labor market needs by these associations.

It has been widely observed that sector associations like FNCCI, CNI, FNCSI, HAN, FCAN, etc. are always complaining about lack of required skilled workforce and incompetence of trained persons. However, these associations are hardly involved in assessing even their own needs on what competencies and skill sets they are looking for from among their diverse workers. In fact, they should be on the frontline in formulating and placing their needs to the training delivery organizations. As of now, this has sadly not been the case. It is the training providers, or development partners assessing the demand of the industries and on this basis, training is organized, which has largely resulted in mismatch between skills imparted and industry needs. The mismatch is resulted with the employers missing out of their roles in the equation.

The Ministry of Education, Science and Technology (MoEST), and CTEVT, with technical and financial support from SKILLS Project funded by UNDP Nepal have developed the Training Management Information System (TMIS) which maps out the supply side of the labor market in 2017. The system is now in operation and more than 300,000 supply-side information from different training institutes have been regularly fed into the system. The information system is physically installed at Government Integrated Data Centre (GIDC) under Department of Information Technology (DoIT). The system lacks the link with the demand side of the labor market and has limited access to only demand-side actors.

There are sustainability issues in labor market information process and system. Programs are continued till the support of the development partner. Once the external resources are withheld, the programs either slowly change track or fizzle out.

# Conclusion

International experience suggests that a comprehensive labor market information system (LMIS) is the backbone of any successful education and employment strategy, but no single methodology or approach can generate sufficient knowledge of a given labor market to avoid or minimize skills mismatch between supply and demand. The right mix and complementary of different methods is essential for a reliable and comprehensive overview of skills demand and matching. There is no doubt that the private sector, as a major beneficiary of skills development, has a key role to play as a main partner in any labor market analysis. But the roles of the public sector, governments, and social dialogue platforms in skills anticipation, matching and provision of LMI are equally significant. Better matching between skills supply and demand has great positive effects not only for individuals looking for jobs or for upskilling themselves but also for society at large and should be perceived as a public good to be reflected more strongly in public policies and investments. Thus, I conclude that ensuring meaningful engagement of employers is essential while conducting labor market analysis in all aspects, i.e. from planning to the drawing of the conclusion of LMI-survey, thereby paving the way for appropriate action to ensure a labor market, where demand and supply of qualifications

and skills match each other.

# **Disclosure of Conflict of Interest**

The views expressed in this article are the author's personal views, so they do not reflect the organization where the author works.

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