Education, Vocational Training and Labour markets in Vietnam: Mutual Distrust and the Supply-side Approach

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Abstract (250-500 words)

In this chapter we discuss technical and vocational education and training (TVET) educators' perspectives on Vietnam's skill needs, as a basis for questioning the country's policy approach to skill formation. From our analysis, Vietnam's current policies are flawed in their assumptions and as a result may fail to deliver on the needs of the country. They may also risk causing mistrust between the involved stakeholders. Previous studies of Vietnam's skill formation system often note that its TVET offer does not deliver the intermediate level skills necessary to meet the challenges emerging from technological innovation and industrialisation. To solve this problem, it has been suggested that educational establishments should more closely align education and training programs with employers' skill needs. What is advocated is a supply-side approach, which assumes that 'skill supply will create its own demand'. As such, Vietnamese policymakers have urged TVET institutions to improve their relevance to employers, as well as pursue market-based reforms to enhance the 'flexibility and adaptability' of TVET institutions. First, we challenge the narrative that informs the approach taken by Vietnam's policy makers. The claim is that there is an increasing skill mismatch, including skill shortages, which is impeding further economic growth and industrialisation in Vietnam. At present many firms do not require a large and highly skilled workforce in the sectors expected to lead industrialisation. Indeed, our evidence suggests that whilst many educators in Vietnam may well perceive skills shortages and gaps in ways similar to policy makers, others are much more sceptical of such claims through their direct interaction with employers. And yet, this scepticism is often outweighed by a false optimism that skill demand is increasing, which gives erroneous support to the current policy direction. Second, we argue that Vietnam's market-based reform strategy is unlikely to strengthen the flexibility and adaptability of its TVET institutions. In particular, we note that market mechanisms do not seem to

function well in the Vietnamese TVET sector and ignore the wider social aspects of skill formation in Vietnam. In part, this discussion relates to the educational preferences of the Vietnamese people, which is mainly for higher education despite poor graduate job opportunities. Such choices are informed by the low social status of TVET, with its recruitment predominantly from low-income households, and related difficulties for the increase of tuition fees. The low status and support given to TVET institutions means, moreover, that they face further difficulties improving their market offer i.e. the curricula offered. The corollary of this is increasing distrust among key actors – between educators, policymakers and employers – and likely policy failure. Some educators feel that the government has been merely shifting the responsibility of TVET reform to educational establishments without understanding their constraints. To achieve advanced industrialisation, Vietnam needs an integrated skill formation strategy which stimulates the dynamism of skill demand, whilst acknowledging the social aspects of skills formation to move beyond narrow and instrumental concepts of education and training.

Keywords: skills development policy; Skill formation systems, technical and vocational education and training; Vietnam

Introduction

Vietnam has achieved rapid economic growth and by 2008 had become recognised as a lower middle-income country (Ohno, 2014). To promote further growth, the World Bank (2013) has long suggested that skills mismatch problems must be addressed, particularly in terms of skill shortages and gaps (see OECD, 2019; Goodwin et al., 2014; di Gropello, 2010). Vietnam's skill mismatch issue is often attributed to the failure of supply-side initiatives to meet increasing (intermediate level vocational) skill demands. The current policy emphasis in Vietnam is on a 'supply-side approach', long advocated by the World Bank (2013) and others, which follows the imperatives of human capital theory (e.g. Becker 1993) and assumes that simply expanding skill supply will create its own demand (see Wolf, 2004). There has also been encouragement for Vietnam to improve the quality

of its education and training, particularly its technical and vocational education and training (TVET) programmes, by adopting, or borrowing, unsuitable policy solutions originally formed in developed countries (Mori and Stroud, 2021).

This chapter contends that it is questionable that adopting such approaches/policies will adequately serve the needs of developing countries like Vietnam. The supply-side approach argument (human capital theory fused with a version of Say's Law that production i.e. supply – in this case of skills – will create its own demand and increase economic growth), which focuses on employer perspectives, neglects to analyse educator perceptions of skill demand and supply, assuming that they should and can provide educational programs which respond to employer skill needs. But, in order to obtain a holistic picture of Vietnam's skill formation landscape, it is necessary to understand educator views, as Goodwin et al. (2014) has previously noted. This chapter explores educators' understanding of the current and future skill demand and supply landscape and their efforts vis-à-vis skill supply. Further, contemporary skill mismatch research often ignores the perspectives and interests of students (Cappelli, 2015). It assumes that young people should make 'rational' decisions to meet employer skill needs if they have sufficient labour market information and proper guidance from educators (Almeida and Robalino, 2012; World Bank, 2013; Packard and Nguyen, 2014; Musset and Kurekova, 2018). But, such research often omits in-depth analysis on the extent to which educators (can) influence young people's career and education decision-making.

Vietnamese TVET Policies and Underlying Assumptions

Since the launch of the Doi Moi policy in 1986 and the adoption of an export-oriented growth strategy the Vietnamese economy has grown rapidly (Nguyen and Truong, 2007; Ohno, 2010). The average gross domestic product (GDP) growth rate was

7.6 per cent between 1991 and 2000 and 6.6 per cent from 2001 to 2010; a rate that had remained constant beyond 2017 (6.3% between 2011 and 2019) till the Covid-19 pandemic (World Bank, 2018; 2020; 2022). Industrial development has been a key factor for Vietnam's economic growth, and the manufacturing sector as the focus for this chapter, has proved a particularly important driving force for growth and industrialization (World Bank, 2012a; Athukorala and Tran, 2012). Taking advantage of foreign direct investment (FDI), manufacturing value-added grew at an average of 10.5 per cent in the period from 2001-2010 and between 2011-19 averaged 14.3 percent (Manning, 2010; Ohno, 2010; Perkins and Vu, 2010; World Bank, 2018; 2016; 2022). The growth of the manufacturing sector has accelerated the economy's transformation from agriculture-based to industrialised, with some sub-sectors e.g. automobiles, electrical equipment and garments growing faster than others (McKinsey Global Institute, 2012).

However, Vietnam's progress and transition beyond a lower middle-income country appears to be stalling, mainly it is argued due to skills mismatch (VBF, 2010; 2014; 2017). 'Skill mismatch' can refer to either a 'skill deficit', when demand exceeds supply, or 'over-skilling/qualification', when individuals have higher skill levels or qualifications than needed for their current jobs (McGuiness et al., 2018). In developing countries, like Vietnam, it often refers to the former, skill shortages (in the labour market) and gaps (skill deficits within a workforce) in particular (Almeida et al., 2012a; Martinez-Fernandez and Choi, 2012).

Current theoretical discussions on skill mismatch can be roughly divided into two approaches from the viewpoints of its causes and corresponding policy focuses (Desjardins and Rubenson, 2011; Lloyd and Payne, 2002). First, there is the theoretical approach which ascribes skill mismatch to the supply-side, which evolved based on human capital theory and explains that skill mismatch occurs if there are market failures

hindering skill supply from responding to the skill demand of employers (Almeida et al., 2012a; Booth and Snower, 1996). Further, and relatedly, existing research on this approach often reports that skill shortages and gaps are expanding since skill demand is increasing due to technological progress, which is an argument based on the theory of 'skill-biased technological change' (Card and DiNardo, 2002; Goldin and Katz, 2008). Here, the introduction of a new technology, a change in production methods, or a change in the organisation of work is argued to increase demand for more skilled labour relative to less-skilled labour at fixed relative wages and lead to rising earning inequality. It is often assumed that developing countries which undertake trade liberalisation and receive increasing FDI inflow experience skill-biased technological change (Almeida, 2010; Srour et al., 2013; Neto et al., 2021). More generally, these supply-side approaches assume that skill supply creates its own demand and that skill shortages and gaps can often be attributed to the insufficient performance of educational and training institutions (Brown et al., 2020). Therefore, the approach suggests that governments should improve education and training programs in accordance with increasing employer skill demand (ADB, 2009; Martinez-Fernandez and Choi, 2012; Reddy et al., 2016; Ashton et al., 2017).

The second approach attributes skill problems not only to the supply-side but also the demand side, with a focus on employer demand and skill utilisation. This 'demand-side approach' emerged from research on the political economy of skill formation, which raises issues about economic competitiveness, social purpose and social justice (Ashton et al., 1999; Brown, 1999; Gog et al., 2014). However, we might note that technological developments introduced by employers are not always orientated towards increased demand for skilled workers (and greater skill utilisation), but may be aimed at the replacement of skilled workers (Ashton and Green, 1996; Brown et al., 2001). Indeed,

firms are not as 'progressive' as human capital theory assumes. In certain conditions, it can be perfectly 'rational' for firms to pursue a low-skill strategy (Payne and Keep, 2011; Lloyd and Payne, 2016). Accordingly, they do not always require high levels of skill, in particular when they are entrenched in the free market's bias towards short-term profits, and hence they do not always promptly invest in education and skills in response to technological changes or opportunities to move up value chains (Ashton and Green, 1996; Payne and Keep, 2011).

Often, supply-side policy approaches focused on the expansion of skills supply, have greater penetration within developing countries, evidenced by many countries across Asia and Africa attempting to improve TVET programs in accordance with *apparent* employer skill needs (Almeida et al., 2012a; Boahin and Hofman, 2014). In Vietnam, economic growth and industrialisation is argued to have been hindered by skill shortages and gaps, for both professional staff and intermediate workers (Goodwin et al., 2014; World Bank, 2013). These studies have tended to attribute these shortages and gaps to the poor performance of Vietnam's education and training system i.e. the supply-side. This argument assumes that the demand for skilled workers is increasing, in particular in foreign-invested enterprises (FIEs) and prompted by skill-biased technological changes.

The Vietnamese government has, for some time, been attempting to improve TVET programs by paying closer attention to employer skill needs (Communist Party of Vietnam, 2013). In particular, it intends to meet perceived skill demand by expanding the supply of TVET graduates – from 3.7 million in 2010 (GSO, 2014; 2016) to around 34.4 million by 2020, according to the *Human Resource Development Master Plan (HRDMP) 2011-2020* (Government of Vietnam, 2011a). In addition to the quantitative expansion of skill supply, the government is aware of calls to improve the quality of education and training programs – the *Socio-Economic Development Master Plan (SEDP) 2011-2015*,

for example, suggested paying greater attention to quality improvement instead of expanding the number of educational establishments to increase supply (Government of Vietnam, 2011b).

Aiming to improve the quality of TVET programs, policymakers intend to carry out market-based reforms, which in Vietnam consists of two key components (Almeida et al., 2012b, p. 61). First, the government intends to use legal/regulatory measures to increase the autonomy of TVET institutions in curriculum development (Mori, 2019; NIVT, 2019), assuming that it will enable TVET institutions to improve partnerships with firms and hence improve the economic relevance of education and training programs (World Bank, 2013). Policymakers have adopted market-based solutions because the government is likely to face financial constraints in improving the quality of education and training. Thus, they are mandating for educational establishments to be financially self-sustainable, and giving them more autonomy (Government of Vietnam, 2015; NIVT, 2017).

The second component of the market-based strategy is the enhancement of competition among TVET institutions. The government is planning to promote competition-based funding based on bidding (Mori, 2019, p. 258). Training institutions should submit proposals and compete with each other. This is because the ultimate objective of this market-based reform is to reduce the costs to the government of supporting TVET programs (Gekara and Snell, 2018). In parallel, the government apparently plans to restructure TVET institutions by grouping some schools, to reduce the overall number of schools, and upgrade some colleges and vocational schools to universities (Mori, 2019, p. 258). The general rational of this policy direction is the apparent skill deficit perceived by policymakers (Mori and Stroud, 2021), which as will be discussed from our research is a perception that educators seems to share.

The Research

This chapter draws on data from a significant research project on skill mismatch in Vietnam, which focused specifically on intermediate workers such as technicians and skilled operators, a government priority (see Mori, 2019). The research aimed to provide a comprehensive picture of Vietnam's skill formation system by examining the perceptions of three sets of key actors: (i) national and local policymakers; (ii) employers, and; (iii) educators. The study focuses on skill mismatch in the machine manufacturing industry, which includes the automobile, motorcycle, and electric and electronic sectors – these industries have high potential to increase manufacturing value added and require skilled workers and so constitute a relevant focus for Vietnam's economic ambitions (ILO and ADB, 2014; McKinsey Global Institute, 2012; UNIDO, 2013).

The analysis of this chapter is mainly derived from qualitative data obtained through in-depth interviews with 14 people from 12 educational establishments, including technical and vocational training and education (TVET) institutions and universities which also provide TVET courses (see Table **1Error! Reference source not found.**). Data was generated through semi-structured face-to-face interviews during the field research phase in 2016. The majority of interviews were conducted where most large assemblers in the machine manufacturing industry in Vietnam are located i.e. in the Red River Delta surrounding Hanoi in the north, the capital city, and in the south east surrounding Ho Chi Minh City.

Table 1. Interviewed Educational Establishments

No	Pseudonym	Affiliation	Region	Number of Interviewees	Interviewees
1	Public University A[a]	National Government	Red River Delta	1	Vice Rector
2	Public University B[a]	National Government	South East	1	Vice Rector
3	Private University A[a]	Private Owner	South East	2	1. Vice Rector 2. International Cooperation Staff
	No of University: 3	No of Interviewees		,	
4	Public Vocational College A	Provincial Government	Red River Delta	1	Rector
5	Public Vocational College B	Provincial Government	Red River Delta	2	1. Rector 2. Vice Rector
6	Public Vocational College C	National Government	Red River Delta	1	Rector
7	Public Vocational College D	Provincial Government	Red River Delta	1	Vice Rector
8	Public Vocational College E	National Government	Red River Delta	1	Vice Rector
9	Public Vocational College F	Provincial Government	Red River Delta	1	Vice Rector
10	Public Vocational College G	Provincial Government	Red River Delta	1	Rector
11	Public Vocational College H	Provincial Government	South East	1	Rector
12	Private Vocational College A	Private Firm	South Central Coast	1	Rector
	No of TVET institutions: 9	No of Interviewees		10	
Total Number of Interviewed Educational Establishments:		**12**	**Total Number of Interviewees**	**14**	

Note

[a] Three universities run TVET courses as well as university and professional college courses.

Thematic analysis was carried out to identify patterns in educator perceptions, and we also attempted to highlight cases, which are exceptions to the major patterns in order to identify elements which could help provide understandings of the potential challenges in Vietnam's skill formation system. These cases not only broaden understanding of the

pattern with alternative explanations, but also provide clues that lead in different directions (Patton, 2015).

General Perceptions of Educators on Skill Mismatch

In general, educators perceive that skill demand is increasing, driven by technological progress and, as a result, expanding employment opportunities for intermediate workers. They anticipate technological development will accelerate the demand for intermediate workers with higher-level skills in the future. In particular, some of them expect the number of large firms that utilise higher technology to increase in the future, due to competition accelerated by further integration into global markets:

> In my point of view, in the future, the number of small companies will decrease, and the number of large companies will increase. So, they will have higher technologies. That's why they will have higher skill demand... [The Vice Rector, Public University B]

Educators apparently anticipate two main events which will promote technological progress and increase skill demand. For one thing, increasing FDI is expected to stimulate the demand for a skilled workforce:

> …some companies which are now investing in China may divert their investment to Vietnam. Therefore, the demand for technical workers might increase. [The Vice Rector, Private University A]

In addition, several educators predict further integration into regional and global markets through participation in the Trans-Pacific Partnership (TPP) and the ASEAN Economic Community (AEC), which will also increase skill demand:

> …According to one report which assessed the impact of ASEAN integration, the demand for unskilled workers will increase by 28 per cent, while the demand for skilled workers will increase by 13 per cent. So, I think in the next few years, the

> demand for skilled workers will be higher. [The Rector, Public Vocational College D]

The figures quoted above indicate that the demand for skilled workers will grow slower than for unskilled workers, but it seems this is of little concern to our interviewees – more attention is focused on what is perceived to be (the smaller but nonetheless) increasing demand for skilled workers.

These two factors were also recognised by the government (see Mori and Stroud, 2021). However, educators suggested two more elements which the policymakers interviewed for this research did *not* articulate. First, they indicated that the development of supporting industries, which comprise parts and material suppliers, is increasing the demand for intermediate workers. Several vocational college management staff members explained that parts suppliers would require more intermediate workers than large assemblers – employers concur with this analysis (see Mori and Stroud, 2021):

> I do not think that assemblers require highly skilled workers, but other companies, such as machinery manufacturers, may need high-skilled workers. [The Vice Rector, Public Vocational College B]

Second, the Rector of Public Vocational College D anticipated that the local government's industrial policies would stimulate the demand for skilled workers – which again finds agreement from employers, see Mori and Stroud (2021):

> …the local government approved an industrial master plan that focuses on the shipbuilding, electric equipment, electronics, and machinery sectors. So, I think the demand for workers in those sectors will increase. [The Rector, Public Vocational College D]

Indeed, most of these educators interviewed are working for vocational colleges under local governments which are relatively active in implementing industrial policies (see Mori, 2021).

Based on the above assumption of increasing demand for intermediate workers, educators observe three kinds of skill mismatch in Vietnam. First, several educators stated that there is a significant shortage of intermediate workers as a result of employer increasing demand and insufficient supply of long-term TVET course graduates:

> I think in general, demand for skills is very high, but the supply cannot meet the demand…the number of students who want to take (professional) college courses and above has increased, whereas enterprises have greater demand for students who have taken (vocational) college and lower level courses. So, that is why we cannot supply enough... meet the demand of enterprises… I think maybe the highest mismatch is at the technician level, that means people from vocational training. [The Vice Rector, Public University A]

In particular, the Vice Rector of Public Vocational College E expressed concern that the supply of mechanical technicians has not caught up with the demand in terms of quantity, given that the machining course is unpopular among young people:

> The number of students in mechanical courses is the highest at this college, but every year the number of (vocational) college graduates has not met the labour market demand. We do not have enough students because not many people want to study mechanical engineering in general.

The Vice Rector of Public Vocational College D explained that this is because mechanical technician jobs are not valued by parents who have a strong influence on their children's education and career paths:

> …their parents just say that the work in the mechanical sector is very hard and tough and they wanted their children to have easier jobs. So, they prefer that their children

> study electrical engineering courses. So, I think it's also the mindset or perception that the job of mechanical technicians is always hard and difficult.

The second sort of skill mismatch is oversupply and over-qualification of university graduates, which is caused by the combination of low demand for, and poor quality of, university graduates. The Vice Rector of Private University A mentioned that since the demand for engineers is small, many of their graduates need to start their careers as technicians.

Finally, educators perceive wide skill gaps. They feel that both TVET and university students do not have sufficient skills to meet employers' requirements:

> Even in my university, we still cannot meet the demands of enterprises. Here I mention both in quantity and quality...And, many universities can provide engineering education, but companies still lack engineers. I think the point is that, even though they have graduated from university, students cannot meet the demands of enterprises. [The Vice Rector, Public University A]

In particular, some educators, half of whom are from universities, pointed out a lack of cognitive and social skills, which they call 'soft skills,' including foreign language ability, as well as communication, teamwork, and time management skills.

In summary, educators appear to perceive both skill shortages and skill gaps. Educators believe that there is a large shortage of qualified intermediate workers such as technicians who have graduated from TVET programs, while the number of university-graduated engineers exceeds the demand. As for the quality of skill supply, educators observed that their students do not have enough skills to meet employer requirements. Overall, educators interviewed for this research share very similar perceptions of skill mismatch with policymakers, and such views are also close to the findings of previous studies (e.g. Goodwin et al., 2014; World Bank, 2013). But, current evidence suggests

that such perspectives only find agreement with employers' views (i.e. demand) in very limited ways (see Mori, 2021; Mori and Stroud, 2021).

Challenges of Current TVET Policies: Flaws in the Supply-side Approach

Current Vietnamese skills policy is formulated on two key assumptions. First, skills deficits are caused by the insufficient performance of the supply-side and not meeting increasing skill demand. The second assumption is that the market for TVET will work to reduce skill mismatch if the supply-side, in particular TVET institutions, improves the quality of education and training programmes in accordance with employer skill needs, and that these institutions guide their students to choose their career path according to what is believed to be an increasing demand for intermediate workers. But, these two assumptions are, we argue, highly questionable.

Lack of Dynamism in Skill Demand

Despite optimism for increasing skills demand shared by policymakers and educators, it is hard to find firm evidence that skill demand is actually increasing, as the above argument assumes. Skilled workers still account for a small share of total employment and this employment structure has not changed drastically, despite the rising expectations of skill-biased technological change (Martins-Neto et al, 2021). According to labour force survey data, 34.5 percent of the workforce comprised unskilled workers in 2019 (GSO, 2021). Furthermore, the proportion of intermediate workers (i.e. technicians, skilled machine operators, production line leaders), including those in the machine manufacturing industry on which this chapter focuses, seems to have stalled (Mori, 2019). Middle-level professionals, including technicians and associate professionals, were 3.4 per cent of the total employment population in 2019, which has declined from 3.8 per cent in 2009 (GSO, 2021). In addition, the employment growth rate for mid-level

professionals appears to have slowed. From 2011-2019, average employment growth was marginal (0.6 per cent) and even negative in most years (see Table 2). Employment of plant and machine operator and assemblers (mostly semi-skilled workers) has been growing faster (e.g. Hilal, 2018). However, these workers are likely to include low-skilled production line operators in the machine manufacturing industry, who are often upper-secondary graduates in Vietnam (Vind, 2008).

Table 2. Employment Growth Rate of Machine Manufacturing Related Occupations (2011-2019)

Unit: Thousand Persons

Occupation		2011	2012	2013	2014	2015	2016	2017	2018	2019	Ave Growth Rate
Leaders /managers	No	538	532	554	579	574	552	606	619	522	
	Growth Rate		-1.2%	4.2%	4.6%	-0.8%	-3.9%	9.8%	2.2%	-15.8%	-0.1%
High level professionals[a]	No	2,679	2,810	2,982	3,262	3,498	3,637	3,801	3,813	4,279	
	Growth Rate		4.9%	6.1%	9.4%	7.3%	4.0%	4.5%	0.3%	12.2%	6.1%
Mid-level professionals[b]	No	1,779	1,749	1,711	1,656	1,688	1,643	1,757	1,864	1,855	
	Growth Rate		-1.7%	-2.2%	-3.2%	2.0%	-2.7%	7.0%	6.0%	-0.5%	0.6%
Plant and machine operator and assemblers [c]	No	3,529	3,758	3,678	3,946	4,606	5,033	5,275	5,494	6,604	
	Growth Rate		6.5%	-2.1%	7.3%	16.7%	9.3%	4.8%	4.2%	20.2%	8.3%
Unskilled occupations [d]	No	20,430	21,019	21,467	21,230	20,986	20,179	19,908	19,228	18,838	
	Growth Rate		2.9%	2.1%	-1.1%	-1.1%	-3.8%	-1.3%	-3.4%	-2.0%	-1.0%

Note

[a, b, d] These occupations are likely to include non-manufacturing related workers (e.g. administrative staff, sales and marketing staff, etc.)

[c] They are likely to include unskilled workers such as production line operators.

Source: Author's calculation based on GSO (2021).

Earlier studies (e.g. Martinez-Fernandez and Choi, 2012) have concluded that the stagnant employment growth of intermediate workers is due to skill shortage. However, this may not be the case due to the questionable validity of previous research findings from large employer surveys, which are often based on subjective or exaggerated views of company managers and often fail to provide compelling evidence (Cappelli, 2015; Holt et al., 2010). In fact, employers do not uniformly perceive large-scale skill shortages at the intermediate occupation level in the machine manufacturing industry – one area expected to lead Vietnam's industrialisation (Mori, 2021). This is mainly because they

consider that skill demand is not increasing in volume and because skill-biased technological change is incremental. Previous studies have claimed the existence of a large skill shortage by overlooking the lack of dynamism in skill demand, and failing to distinguish between quantity and quality issues perceived by employers (e.g. Goodwin et al., 2014; World Bank, 2013). Our findings caution against supply-side policies in developing countries, especially medium-sized countries which are latecomers to the global supply chain, without in-depth analysis of demand-side issues and industrial sectors (see Valiente 2014).

Furthermore, the interview data suggest that some educators hold conflicting feelings regarding the prevalent notion of growing skill demand. While indicating increasing demand for intermediate workers, they stated that the demand for unskilled production line operators is still higher than for skilled workers, mostly based on observations of nearby firms' recruitment activities:

> …there are many industrial sectors which do not require high levels of education or skills. Firms in those sectors need just simple-skill workers. Then, they do not need to pay higher salaries for higher skilled people. Also, they can get those workers very easily. I think that is the reality in the labour market in Vietnam. [The Rector, Public Vocational College C]

Educators apparently anticipate increasing FDI will promote technological progress and increase skill demand. However, some expressed disappointment in FIEs when strong aspirations for upskilling did not transpire. The Vice Rector of Public Vocational College B found that FIEs prefer to recruit unskilled workers and are not motivated to train them:

> And compared with Vietnamese companies, I can see that foreign companies prefer to hire unskilled workers. Then, they do not provide them with much training. So,

> workers can do only very specific work. So, when they leave these companies, they can do only limited tasks.

In particular, several of them indicated that large foreign-invested assemblers usually focus on unskilled workers:

> As you may know, [a large Korean electronics assembler] is now recruiting a huge number of workers in Vietnam, but they use only unskilled workers. How long will they recruit that large of a labour force? After 2 or 3 years, they may release (dismiss) these workers and what will happen to them? [The Vice Rector, Public Vocational College E]

Ironically, many TVET graduates are likely to be working for those assemblers, as stated by the above Vice Rector.

TVET students are often recruited as operators or assemblers when entering firms and look for an opportunity to be promoted to technician, according to the Vice Rector of Public Vocational College F. This view explains some firms' recruitment practices (Mori, 2019) and implies that educator perceptions of increasing demand for intermediate workers are not based on convincing evidence but wishful thinking, particularly as the high employment rate does not necessarily guarantee that TVET students are working as intermediate workers.

In short, most educators perceive growing skill demand at the intermediate occupation level (as the supply-side approach assumes), but at the same time they are uncertain whether firms, in particular large FIEs, require more skilled workers. This uncertainty is likely to be hidden behind the pervasiveness of current policy. In other words, the assumption that firms are requiring more skilled workers is so trusted that some educators struggle to challenge it despite not being fully convinced.

Challenges for Market-based Reform Strategies

Our research findings indicate two challenges in adapting the market-based reform strategies. First, TVET institutions have limited capacity to utilise the apparent autonomy given by the government. As mentioned above, the government has given vocational training institutions more autonomy in designing curricula to meet firms' skill needs. However, many TVET institutions lack the internal capacity and resources to improve curricula on their own, as the Vice Rector of Public Vocational College D reported:

> …we can (now) design 100 per cent of curriculums, with approval of the rector. But I think that to design the whole curricula by ourselves, we need time and capacity…And the second thing is that, most of the teachers or professors here graduated from university and they came here to teach, and they don't have practical experience. They don't understand how enterprises operate and what enterprises really want.

On top of the capacity constraints, TVET institutions face low staff motivation. Some TVET institution management expressed the view that their instructors often lack the willingness to improve curricula according to employer skill needs. The Vice Rector of Public University A stressed the difficulty in promoting a change-oriented mind-set among the staff:

> The challenge now is how to change...internally change ourselves, because as I already mentioned, we are trying to move from the supply-oriented to demand-oriented education, but it is not easy to change the mind-set and behaviours of all people, all staff, to adopt the new strategy… Even at the higher level like the management level. Always the way of thinking is affected by the planned economy mindset. They just do what others do, but they do not have creative thinking.

Second, TVET institutions regard this market-based policy – a policy mostly borrowed from developed economies – as a serious challenge to financial sustainability (Burchill, 2001; Williams, 2003). Many interviewed educators reported that they already

lack financial resources, in particular for upgrading their training equipment (to more closely reflect what firms use). One way to increase resources is to increase tuition fees, which is often the main income source. Several interviewed educators pointed out that the current tuition fees are too low to cover their training costs:

> …so, there is a big gap (between income from tuition fees and training cost). So, how can we train skilled workers if we do not have enough income to cover training costs? I think the gaps should be filled by the government. It is a big issue. Regarding the welding course, to meet the standards, each student needs to have one machine, but currently 5 students share one machine. So, there is a big gap. [The Rector, Public Vocational College A]

Nonetheless, as the Rector of Public Vocational College A stated, many TVET institutions do not dare increase tuition fees, since their students often come from lower income households and cannot afford to pay more. Thus, most TVET institution managers requested the government provide more financial support for upgrading and maintaining training facilities as well as improving wages and welfare for teachers.

Another option is to secure a sufficient economy of scale by recruiting more students. The government intends to reinforce ongoing promotion activities to assist TVET institutions in attracting more students, realising that many of them have already faced this difficulty (Mori, 2019). It is also attempting to guide young people away from university education and towards more ‘suitable’ education and career paths, assuming that young people are prone to make ‘unrealistic’ and ‘irrational’ choices (Musset and Kurekova, 2018).

However, TVET institutions are still facing difficulties in attracting young people. In particular, enrolments in long-term vocational courses, including at the vocational college and secondary levels, are not greatly increasing. The number of new students in vocational secondary courses declined from 199,000 in 2009 to 128,971 in 2015.

Enrolments in vocational college courses decreased from 89,000 in 2009 to 81,000 in 2015. While they have increased suddenly since 2016, mainly due to the merger of the vocational and professional college courses, it will be interesting (and necessary) to observe whether this is a single upward event or a long-term trend (see Table 3).

Table 3. Number of Admitted Students for TVET Programs by Course

Unit: Thousand Persons

Course		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vocational Primary/Elementary	No.	1,420	1,468	1,552	1,279	1,516	1,803	1,769	1,836	1,664	1,665
	%	83.1%	84.1%	87.5%	85.7%	87.5%	89.1%	89.4%	77.5%	75.5%	75.3%
Vocational Secondary/Intermediate	No.	199	181	142	129	128	133	129	290	310	316
	%	11.7%	10.4%	8.0%	8.7%	7.4%	6.6%	6.5%	12.3%	14.1%	14.3%
Vocational College	No.	89	97	80	84	89	88	81	241	230	230
	%	5.2%	5.6%	4.5%	5.6%	5.1%	4.3%	4.1%	10.2%	10.4%	10.4%
Total		1,708	1,746	1,774	1,493	1,733	2,023	1,979	2,368	2,204	2,210

Source: NIVT (2014; (2018; (2020).

The supply-side approach explains that this problem can be solved by disseminating more labour market information, provided that TVET institutions carry out training courses which meet employer requirements (World Bank, 2013; 2012b; Rita Almeida and Robalino, 2012). Their logic is based on the human capital theory assumption that people will make a rational decision in a perfect labour market (Becker, 1993). In this case, they presume that the 'rational decision' is choosing to join TVET due to the availability of more job opportunities rather than going to university and being unemployed/underemployed.

Of course, as recruitment patterns show, young people may still not join TVET programs, even with more labour market information. To begin with there is simply low demand for TVET-graduated intermediate workers. Furthermore, even if skill demand picked up and the labour market information indicated high demand for intermediate workers, social/parental pressure to obtain a university degree is likely to make young

people hesitant to attend TVET programs. In making an education or a career decision, most young people pay attention to social factors, in addition to economic factors such as the entry level salary (Brown et al., 2001). Young people and their families are likely to care that the social status of bachelors' degree holders is much higher than that of TVET graduates in Vietnamese society:

> …in fact in their minds, they still hope their children can go to university, but they have to accept the fact that their children cannot go to university and they become more realistic. So, they send their children to vocational training. Maybe the social image of people from universities is higher. [The Vice Rector, Public Vocational College D]

The Deputy Division Head of Government Agency B explained that in Vietnamese culture, university graduates are highly respected, regardless of job availability for them. In contrast, the social status of TVET students is much lower than that of university graduates in the Vietnamese education system, as it often the case elsewhere (see, for example, Brockmann and Laurie, 2016, p. 2; Fisher and Simmons, 2012, p. 38). Thus, the Vice Rector of Public Vocational College D stated that most young people and their families would not regard TVET as a primary choice even with the provision of more labour market information:

> I think it's not only the reason of lacking information. The main reason is their parents. They would be proud if their children can enter universities. And if a neighbour's children go to university but their kids don't, they will be very disappointed. Therefore, they encourage their kids to pass the university entrance examination in order for them to feel proud and equal to other people.

Social value issues are linked to the low economic status of TVET graduates, which further discourages young people from joining TVET programs. Young people and

their families often expect that a university degree will enable them to obtain a better job with decent working conditions (Mori, 2019, p. 248).

Indeed, several policymakers and educators reported that the salaries for TVET graduates are sometimes the same as those of upper-secondary graduates and so young people's perceptions are likely to reflect reality. In fact, some firms do not differentiate between TVET and upper secondary graduates in determining salaries. In their salary schedule, TVET graduates fall into the same grade as upper secondary graduates, because they doubt the capability of TVET graduates and assume that they join TVET programmes since they failed to enter upper secondary schools or universities (Mori, 2019, p. 249). In such circumstances, it is highly likely that young people prefer to apply to universities if the salary level of TVET graduates is perceived to be very similar to upper secondary graduates. Therefore, educators are requesting stronger government intervention to divert young people from university to TVET programs.

Hence, the government has recently implemented several policies, such as a change in the university entrance exam system, but it is uncertain if the government will strengthen its control of university student numbers. This is because some in the government believe that the restriction on university enrolment should be removed as it discourages existing universities from improving the quality of education according to student demands (e.g. World Bank and Ministry of Planning and Investment of Vietnam, 2016).

The broader assessment is that educators feel that the market-based reform strategy does not fit the Vietnamese TVET sector, in which the market mechanism is not functioning. In fact, there has long been criticism that this strategy is not working even in the developed countries from which they originate and draws attention to the difficulties in applying market-based reform strategy to the TVET and higher education sectors

regardless of the level of economic development (e.g. Marginson, 2013; Newman and Jahdi, 2009). As a result of pursuing this strategy, some educators feel that the government has been merely shifting the responsibility of TVET reform to educational establishments, neither understanding their constraints nor providing them with sufficient support:

> Actually, we do not get any specific support, except for a kind of management or administration (from the government). The government issued one document which mentioned that all universities have to improve their relationships with enterprises, but that is just a document. They do not give any money or instruction, or they do not have any program to connect universities to enterprises, no, nothing. But they give that direction and request all universities to follow it and strengthen the relationships with enterprises. [The Vice Rector, Public University A]

These findings indicate that the market-based reform strategy may cause the quality of TVET programs in Vietnam to deteriorate, which is a risk that the OECD (2016) has noted. It may also discourage TVET institutions from providing the courses requiring high levels of investment, regardless of the nation's skill needs for industrialisation. Furthermore, in order to mobilise financial or other sorts of support from firms, it may lead them to accommodate employers' immediate skill needs rather than provide opportunities to develop transferable skills required for people's long-term career development (Gekara and Snell, 2018).

A Consequence of the Supply-side Approach: Mutual Distrust

The above findings indicate that the foremost challenge to Vietnam's upskilling is not large skill shortages and gaps. Instead, what we find is a lack of dynamism in skill demand. The current skills formation strategies adopted in Vietnam are formed and based on misaligned perceptions among key actors. The potential corollary of this is *mutual distrust* among key actors caused by misperceptions of the nature of skill demand. In

particular, the sluggish growth of demand for intermediate workers is concerning in Vietnam, where many workers still hold elementary occupations. Indeed, the slow growth of intermediate jobs may expand job polarisation between a small number of highly-educated professional staff and the large number of unskilled workers, as some have predicted (Autor, 2015; Goos et al., 2009; ILO, 2017; Cedefop, 2018b). Longstanding evidence suggests that the policy direction currently adopted risks impeding social mobility for disadvantaged classes in society and makes it difficult to achieve 'inclusive skill development' benefiting an entire population (Brown et al., 2020). The risk is creating an over-qualified workforce when there is no corresponding increase of demand for these skills, which is becoming common in emerging economies such as China (Mok and Qian, 2018), as well as developed ones (Eddington and Toner, 2012; Cedefop, 2018a; b).

Within Vietnam, Handel et al. (2016, p. 67) has reported that 70 per cent of surveyed workers are overeducated, and like their counterparts elsewhere Vietnamese policymakers are trapped in a skill mismatch paradigm created by the supply-side approach, in particular for intermediate occupations, without compelling evidence (McGuinness et al., 2018). In short, Vietnam will not be able to achieve industrialisation along with inclusive skill upgrading by means of its current policy approach, particularly without acknowledgement of the flaws we outline and effective countermeasures to fix them. Indeed, imposing a supply-side approach without understanding these flaws may not help Vietnam become a high-skilled economy, but this could lead to increasing distrust among key actors instead of forging partnerships (see Figure 1).

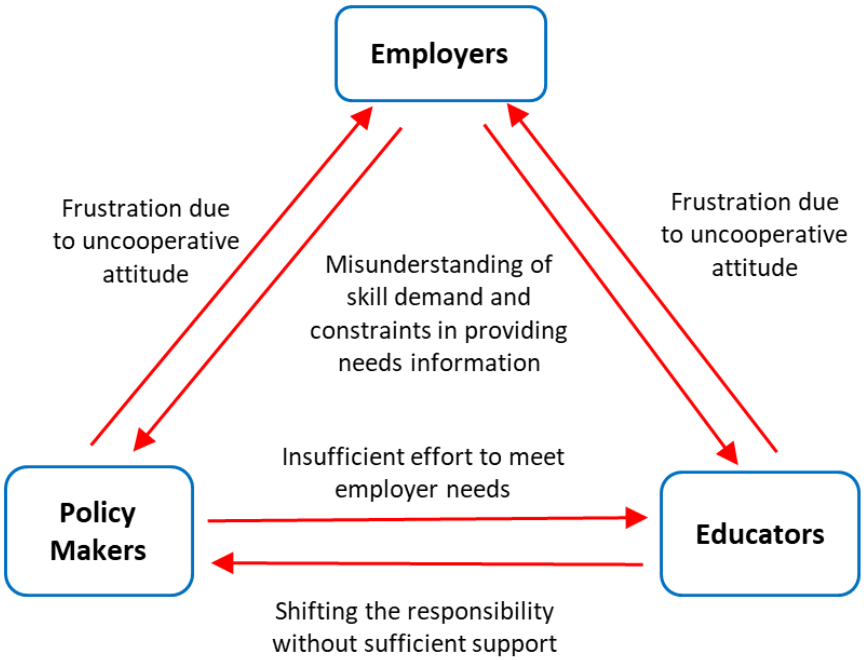

Figure 1. Structure of Mutual Distrust among Key Actors

Source: Mori (2019).

Figure 1 illustrates how mutual distrust between actors develops. Here, policymakers and educators tend to criticise firms for being uncooperative and irresponsible regarding the improvement of education and training, whilst employers claim that policymakers and educators do not understand the slow growth of skill demand and the constraints in providing precise information on their current and future skill needs (see Mori, 2019; Mori 2021; Mori and Stroud, 2021). Moreover, some educators feel that the government has been merely shifting the responsibility for realising the supply-side solutions, under the banner of the market-based reform without providing adequate support. In short, what disconnects key actors is the distortion caused by adopting a skill formation strategy unsuited to Vietnam's context, not merely the lack of labour market information as previous research has concluded (e.g. World Bank, 2013).

One way the government can break through this deadlock of weak employer demand and mutual distrust among key actors is to address the demand-side by

integrating skill and industrial policies, as suggested by the demand-side approach and adopted by other economies in the region e.g. Singapore (Ashton and Sung, 2015; Brown et al., 2015; Sissons and Jones, 2016). Currently, the national government's interventions in the demand-side are neither proactive nor effective (Mori and Stroud, 2021), which is a key difference from Newly Industrialised Economies (NIEs) that have adopted a 'developmental skill formation model' as part of a demand-side approach (e.g. Ashton et al., 1999). Additionally, others have suggested that a country the size of Vietnam needs greater sensitivity to local and regional circumstances, with more involvement (to build trust) from local/regional governments and stakeholders in strategizing industrial policy at the local/regional level (Mori and Stroud, 2021).

Conclusion

This chapter suggests that educational establishments mainly perceive three types of skill mismatch in Vietnam: (i) a skill shortage of intermediate workers who graduated from TVET programs; (ii) an oversupply or over-qualification of graduates from university engineering programs; and (iii) a gap between employer requirements and the skills of both university and TVET graduates. Educators attribute these skill mismatches to insufficient quantity and quality of skill supply in conjunction with growing skill demand accelerated by the factors such as increasing FDI inflow, regional economic integration, and technological development. In short, they share a very similar understanding of skill mismatch with government officials, mainly because their perceptions are based on government policies and reports rather than direct input from employers. Accordingly, educators are following government's skill formation strategies which focus on supply-side solutions to improve the quantity and quality of TVET programmes, encourage more young people to attend TVET programs and become intermediate workers, based on their assumption of increasing skills demand.

The government's argument relies on human capital theory assumptions that firms are willing to recruit more skilled workers once they become available, but the evidence suggests that many firms are unlikely to require a large skilled workforce at present (Mori, 2021). This casts doubt on the feasibility of current skill formation strategies, which some educators share i.e. they have conflicting feelings about the prospect of skill demand, expressing both high anticipation and suspicion. What educators suggest they are facing is difficulty mobilising support from employers to realise current skill formation strategies focused on supply. At the same time, there is optimism that skill demand will increase as a result of the current policy direction.

But, the government believes that supply-side solutions will work if all key actors make adequate efforts to realise them, including educators. Further, policymakers attribute current problems to a lack of labour market information and insufficient effort on the supply side (Mori, 2019). Accordingly, they intend to collect more skill needs information, adopt a market-based reform strategy to promote autonomy and competition among educational establishments, even though the effects of these strategies and models are controversial and largely unproven even in the countries from which they originate (Marginson, 2013; Payne, 2008; Keep, 2015). Indeed, such countermeasures would still not enable the reform of TVET programs in accordance with employer skill needs. The findings of this research indicate that the challenges reported by educators originate from insufficient recognition of the fundamental flaws of the supply-side approach.

What is argued in this chapter, is that – in the nexus of relations between policy makers, educators and employers – the current policy approach risks creating distrust among key actors, rather than creating the skill driven growth that is anticipated. In particular, educators are being put in the difficult position of implementing skills policies that increase frustration with, and distrust of, government policies. In order to overcome

this and achieve better focused skill formation in Vietnam, policymakers need to reconsider current policy approaches. There is a need for more integrated policy on skills supply-demand (Ashton and Sung, 2015; Brown et al., 2015), including – as some educators have indicated – identifying ways to stimulate skills demand, through for example a greater focus on supporting industries, and a greater emphasis on local industrial policies (see Mori and Stroud, 2021). At present, these clues are hidden behind a prevailing view which excessively (and erroneously) focuses on supply-side measures.

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