UNIT 16   EDUCATION SECTOR

Structure

16.0 Objectives

16.1 Introduction

16.2 Market Failure and the Role of Policy
   16.2.1 Goals of Public Policy
   16.2.2 Instruments
   16.2.3 Types of Regulation
   16.2.4 Functions of a Regulatory Authority

16.3 Quasi-Markets for Education
   16.3.1 Quasi-markets and the Conventional Markets
   16.3.2 Conditions for Success of Quasi-Markets
   16.3.3 Quasi-Market Failure: Consumer and Producer Sovereignty

16.4 Demographic Dividend
   16.4.1 Prerequisites for Realising the Benefits of Demographic Dividend

16.5 Quality of Education
   16.5.1 Accreditation and Ranking

16.6 Skill Development
   16.6.1 Initiatives Towards Skill Development in India
   16.6.2 Vocational and Technical Education

16.7 Let Us Sum Up

16.8 Key Words

16.9 Suggested References for Further Reading

16.10 Answers/Hints for CYP Exercises

16.0 OBJECTIVES

After reading this unit, you will be able to:

- explain the concepts of ‘market’ and ‘market failure’ in education services;
- distinguish the market for education vis-à-vis the conventional markets;
- describe the concept of quasi-markets in the provisioning of public services;
- indicate the need for regulation in the education sector;
- state the concept of demographic dividend and indicate how its benefits can be reaped;
- define quality of education and its need;
- explain the role of skill development; and
- discuss the framework underlying the vocational and technical education in India.
16.1 INTRODUCTION

The discussion in Units 4 and 5 highlighted several important characteristics of education as a consumption good (or service) and as an investment. Because of these characteristics, the market in education sector differs from the conventional markets. Below, we recapitulate these and also discuss their consequences for the market for education.

1. **Externalities**: Education being a mixed or ‘quasi-public’ good has features of both the public as well as private goods. It is not a pure public good since the marginal cost of educating an additional child is not zero and there is no difficulty in excluding someone from using the service if one does not pay. However, there are significant positive externalities associated with education. This means the benefits of education are not just confined to the buyer but extend to the society. Educated workforce plays a key role in the economic growth of a nation by *inter alia* facilitating adoption of new technology and increasing productivity. The educated electorate is vital to the functioning of a democracy. Thus, the externalities from education cannot be ignored. This is not the case with most other goods (especially private goods) where the buyer pays the price and enjoys the entire utility associated with its consumption. When we consider the three levels of education (primary, secondary and tertiary/higher), we can see the gaps between private benefits and social benefits of education, which are due to the differential degrees of externalities associated with the three levels of education. If parents ignore the externalities associated with education while deciding expenditure on their children’s education, the demand and the spending on education will be far less than the socially optimum level.

2. **Principle-Agent Problem**: The principal-agent problem occurs when one party (agent) makes decision on behalf of the other (principal). In the childhood, children often do not make the decision for their schooling. The parents decide whether to and how much to invest in education. Since the benefits of education are not immediate, the level of spending will depend *inter alia* on the degree of parental altruism. If the parents place a low value on their children’s returns to education, they may under-invest in the education of their children.

3. **Information Asymmetries**: Information asymmetry refers to a situation when one side (of the market players) has access to more or better information than the other. Information asymmetries are present both in the demand for and supply side of the education sector. Credit market constraints are one source of imperfection in the market for education since the money lending institution may not be able to observe the quality of the student who wants to borrow. If households face constraints in borrowing (despite the low rate of interest on education loans), they may under-invest in the education of the children. Similarly, students or parents may not be easily able to gauge the quality of educational institutes as the latter have more information about the quality. Similarly, employers encounter information asymmetries while assessing and recruiting persons for jobs (especially teachers in the education sector).

4. **Lack of Competition**: Education, especially a quality higher education, is almost like a monopoly because of supply side constraints and economies of scale. Market power may be concentrated in the hands of a few players who can behave like a cartel. With regard to the latter, consider the establishment of scientific laboratories, which entail a huge initial cost and may not be viable on a small scale. A monopolist would like to maximize his profit. Generally, the optimal level of production in
monopoly is lower than that in perfect competition. Hence, in the presence of monopoly, the supply of education will be less than the socially optimum level.

5. **Long Gestation Period**: Benefits of investment in education often accrue after a long delay. In such situations, market signals may be slow to change and perverse market effects (such as ‘cobwebs’) may be generated due to the lag effect. Also, if the decision to invest in education depends on its expected future benefits, the long gestation period makes it difficult to envisage a future macroeconomic scenario creating uncertainty about the benefits.

Thus, the above characteristics lead to several imperfections in the market for education requiring policy interventions to tackle them.

### 16.2 MARKET FAILURE AND THE ROLE OF POLICY

Because of the features of education mentioned in section 16.1 above, the market in education sector may not lead to efficient outcomes. This phenomenon is known as ‘market failure’. In other words, the utility maximizing behaviour of agents (viz. households) and the profit maximizing behaviour of firms (viz. schools) may not always result in efficient outcomes. A market outcome is said to be efficient if it is ‘Pareto optimal’ i.e. no one could be made better off without making someone else worse off. Since market failure in education is largely due to its positive externalities (which lead to sub-optimal production and consumption of education services) if left to the market forces, a large number of children may be excluded from its consumption. Even if the market failure was less severe as in the case of professional job-oriented education (where the gap between the private and social returns from education is narrower), market equilibrium would lead to exclusion of those who are not able to pay for such education. This might be called ‘ethical failure’ as it implies undesirable consequences for distributive justice.

**16.2.1 Goals of Public Policy**

How do we avoid the challenges imposed by market failure? The answer is through government policies and institutions. However, before discussing the role of state and its policy, we can ask: given the possibility of market failure in education sector, why do we need to invoke the markets? In other words, why can’t we leave the provisioning of education exclusively to the state? As a matter of fact, as discussed in Unit 5, public expenditure in education is considered by some as wasteful leading to inefficiency. Also, the supporters of market consider the government subsidies regressive in nature with some others believing that state funding would make educational institutions dependent on the state restricting their institutional autonomy.

One obvious reason why the state needs to play any role in education sector is purely economic. Because there are positive externalities with education, private investment in education has to be supplemented with public investment to make total investment commensurate with the sum of private and social benefits. The second reason for the state’s intervention in the education sector is equity or distributive justice.

At this point, the confusion surrounding the issue of merit and efficiency has to be cleared. One might argue on efficiency ground that the scarce resources of the state should be allocated to educate those who are most meritorious. While ideally merit is supposed to be distributed randomly across the population, irrespective of economic or social classes, the way it is commonly characterised has a strong correlation with the
amount of investment one is able to make on ‘merit-enhancing’ activities. Thus, a merit-based public policy not only excludes the disadvantaged groups, it also perpetuates inequity beyond the present generation. While there may thus appear to be a trade-off between efficiency and equity, there is no reason why economic and social policies should not keep pluralistic goals that would include both. The Twelfth Five Year Plan of India aptly observes that: “education is an important tool for socioeconomic mobility and a key instrument for building an equitable and just society”.

16.2.2 Instruments

The state’s intervention in the education sector usually takes certain combination of the following instruments: (i) Direct provisioning, (ii) Financing but not direct provisioning, and (iii) Regulation. Direct provisioning by the state is still the dominant mode in the education sector in India in spite of a fast growth in the private market in education at all three levels. Ideally, the state’s financing role and the provisioning role can be unbundled, whereby the service is provided by private providers but the consumers (or parents) do not have to pay the market price as the state finances the service either fully or partially. The school voucher system is an example of this. But the applicability of this idea is limited in the Indian context mainly because of the limited suppliers of quality education in the private sector in rural areas. Regulation means that the government imposes restrictions to control and thereby influence an individual’s and an organization’s behaviour in terms of their freedom to decide and exercise their rights and liberties. Regulation is one way of correcting the market failure as well as the ethical failure.

16.2.3 Types of Regulation

Regulation can be classified into three types: (i) command and control, (ii) self-regulation and (iii) market regulation.

- Command and control is a way by which the State enforces rules and regulations. A demerit of this type of regulation is that it hinders framing of pro-market policies.
- Self-regulation implies ‘professionalization of workplace where specialized knowledge of products and commodities require expert interventions’. This mode is also criticized for being self-serving and inefficient. Besides, it can also suffer from lack of transparency and vested interests of the leadership.
- Market regulation involves encouraging competition and informed decision-making by consumers. Creation of quasi-markets (discussed in section 16.3) is one instrument of market regulation.

16.2.4 Functions of a Regulatory Authority

The basic purpose of regulation is to avoid adverse consequences of market failure to ensure the smooth functioning of market. Regulatory authorities are supposed to help achieve this objective by curbing and restraining the competitive elements on the one hand and encourage pro-market competitive policies on the other. Since there is a possibility of conflict between efficiency and social goals, regulation involves walking a tightrope. Regulators also play a vital role in keeping a check on the quality of education. This is achieved by governance mechanisms like ensuring the existence and maintenance of specified infrastructure facilities, requiring to obtain accreditation from bodies earmarked for the purpose, etc. They can also institute a grading system whereby institutions on their own work towards acquiring a higher grade by self compliance of standards stipulated.
16.3 QUASI-MARKETS FOR EDUCATION

The term quasi-market refers to a situation where the delivery of public services (such as education and health) is no longer confined to the state with independent private players also allowed to participate in the market. Bartlett and Le Grand define quasi-markets as institutional arrangements designed to extend the principle of markets and competition to the provision of the services while safeguarding free and universal access which is fundamental to the concept of the welfare state. The term quasi-markets owes its origin to developments in the 1980s in the UK where the government implemented market oriented reforms by introducing the process of competitive bidding in the public sector. Competitive bidding is supposed to lead to reduction in cost and increase in productivity. It was believed that the quasi-markets will enable more efficient production of services without putting social welfare in jeopardy. Competition is central to quasi-markets since one of the objectives behind promoting quasi-markets is to raise competition between the different service providers.

16.3.1 Quasi-Markets and the Conventional Markets

Quasi-markets bear a resemblance to the conventional markets in terms of its basic characteristic of competitive market structure i.e. there is a lack of government monopoly in the service provision. In fact, the quasi markets have been viewed as an attempt to dismantle the bureaucratic structure of welfare provisioning. Quasi-markets are ‘quasi’ since both the supply and demand sides differ from the conventional markets in terms of the following:

- Quasi-markets are allowed to be established by the government. The latter controls the markets by promoting competition through well defined legal or legislative provisions.
- Services produced in quasi-markets usually pertain to social welfare.
- The government or the public sector (and not the consumer) is usually the subscriber, regulator and purchaser of the service.
- The user does not normally pay for service at the point of consumption i.e. money flows between the purchaser and the provider.

Quasi-markets thus provide a safeguard against the possibilities of market failure which in case of conventional markets can occur due to the self-interest of agents involved (e.g. politicians, bureaucrats) as they both can ignore the interest of the consumers.

16.3.2 Conditions for Success of Quasi-Markets

Julian Le Grand and Robert Bartlett, in their book titled Quasi Markets and Social Policy, have specified five conditions that are critical for the success of quasi-markets. These are:

- Competitive market structure
- Adequate information to the users so that they can make an informed choice
- Low transactions cost and uncertainty
- Motivation (by financial consideration) to the service providers
- Absence of selection/avoidance of cream skimming (concern for equality)
16.3.3 Quasi-Market Failure: Consumer and Producer Sovereignty

How does one evaluate whether quasi-markets have been successful? On the basis of the conditions specified for their success above, if any of the pre-conditions are not met, the quasi-markets may be considered to have failed in the sense that an ‘ideal market outcome’ may not be attained. Sovereignty (i.e. autonomy or freedom) of consumers and producers are such ideal market outcomes. In the traditional well-functioning markets, both consumers (students) and producers (institutions) enjoy sovereignty as follows:

- **Consumer Sovereignty**: (i) freedom to decide service provider, (ii) freedom to decide service/product, and (iii) availability of information on prices and quality.
- **Producer Sovereignty**: (i) freedom of entry into the market, (ii) freedom to specify service/product, and (iii) determination of prices.

It is not difficult to see that consumer sovereignty does not always arise. For instance, in case of vouchers for education, the consumers may lack sufficient information about the service. So also the case of children or minors where they are too young to decide on their good.

**Check Your Progress 1** [answer the questions in about 100 words in the space given]

1) Why is it important not to neglect the ‘externalities’ of education to the society? What happens if private investment to education does not come forth in an economy?

2) What is meant by the principle-agent problem in the matter of investing in school education?

3) In the case of monopoly, why is the supply of education less than the social optimum?

4) How can you describe the phenomenon of market failure in education? What is its immediate consequence?
5) Do you consider ‘regulation’ as important in education? Why?

6) Into which three categories can regulation be classified? Which one of the three types of regulation do you consider as ideal? Why?

7) What is meant by Quasi-markets? How has Bartlett and Le Grand defined this?

8) State any three distinctive features of quasi-markets from that of conventional markets.

9) How do quasi-markets provide a safeguard from market failure?

10) What are the conditions necessary for the success of quasi-markets?
16.4 DEMOGRAPHIC DIVIDEND

The term demographic dividend refers to the economic opportunities offered by a large young working age population. A large population in the younger age-groups is beneficial for an economy because of at least three reasons. One, it is the population in younger age-groups which primarily forms the productive workforce of a country. Thus, there is potential for higher economic growth in a country with substantial young population. Second, a large young population means a sizable market for consumption of modern goods and services. A by-product of both these two benefits of demographic dividend is, therefore, enhancement in a country’s ability to attract foreign investors. The third reason why an economy benefits by having a higher share of the population in the younger age-groups is lower fiscal burden on the government. Since the dependency ratio (i.e. the ratio of elderly to the working age population) will be relatively low in such an economy, the expenditure on social security and other types of care for elderly is lower. This effect is, however, true for countries where social security system is operational than is the case for economies like India.

16.4.1 Prerequisite for Realising the Benefits of Demographic Dividend

The fruits of demographic dividend may not, however, be realised unless the population is educated and skilled. That is, unskilled workforce may hamper economic growth and the economy may remain trapped in low-level equilibrium despite possessing a sizable workforce. Similarly, a healthy workforce is equally important to harness the potential offered by demographic dividend. Several studies have established a positive correlation between better health outcomes and the economic prosperity of nations. Thus, while the availability of a large population in working age-group is a plus for India and its economy, the relatively poor attainments in education and health are a hindrance to the realization of demographic dividend. In addition to the poor levels, inequality in education and health is quite high in the country with several studies on human development demonstrating a substantial loss in human development due to these inequalities. It is therefore necessary to improve the educational and health attainments of the population. In other words, to get the benefit of the ‘dividend’ present in the current demographic structure of the country (since it will not last for ever and is expected to prevail up to 2045), we have to focus on our institutional development and policies aimed at reducing the inequalities in education and health services available to the population. In so far as this concerns the education sector (to which the present unit is concerned), we need to focus on the quality of education and skill development.

16.5 QUALITY OF EDUCATION

In determining the labour market outcomes, both the quantity and the quality of education matter. The quantity of educational services is measured using indicators like literacy rate and its attainment at different levels of schooling. Because quantity is more easily amenable to measure, it has received more attention in the empirical analyses of economics of education. For assessing the quality of education, indicators like pupil-teacher ratio, share of out-of-school children in different population sub-groups, repetition and dropout rates, availability of infrastructure, share of wages and earnings, performance of students in cognitive skills in subjects like mathematics and science, etc. are used as indirect indicators to gauge the quality of education. Focusing only on the quantity may give us an incomplete picture about the performance of the education sector. For instance, while enrolment rates have grown in the developing countries, the concerns regarding quality have remained. Recognising its importance, in the 1970s and 1980s, various
international agencies such as the World Bank supported several quality improvement programmes in the developing countries. It is often pointed out that a system of evaluation based on examinations (such as what prevails in Indian educational system) does not encourage development of analytical skills or creativity in students but focuses more on rote-learning. This view is supported by the results of surveys on education [like the Annual Status of Education Reports (ASER) for India] which have all revealed that children as well as teachers are unable to solve even simple arithmetic problems. Problems of quality is more prominent in, but not limited to, the rural areas and the government schools. While physical infrastructure is lacking in the schools located in rural areas, teacher absenteeism too is rampant. In addition, in urban areas the cut-throat competition among private educational institutions, and in particular the mushrooming of private coaching institutes, have distorted the attention meriting to be given for the civic and social aspects of ‘quality of education’ from a much broader perspective. Quality of education in this broader perspective, as defined by UNICEF (2000), includes the following interdependent characteristics:

- **Pupils**: Pupils must be physically and psychosocially healthy and well-nourished. Pupils need to have the support of their families and communities to facilitate their regular attendance in school.

- **Learning Environment**: The learning environment comprises three components viz. physical, psychosocial and service delivery. Physical environment refers to building, wash rooms, drinking water, electricity supply, library, playground, classrooms, furniture and other infrastructure. Psychosocial elements include safe and gender-sensitive environment, teachers’ behaviour, and school discipline policies. Service delivery means provision of first-aid and healthcare, guidance and counselling, and facilities for extra-curricular activities.

- **Content**: Content refers to the curriculum and teaching material which should be balanced in terms of imparting numeracy and life skills. It should be student-centric and non-discriminatory.

- **Pedagogy**: Pedagogy refers to the processes which the teachers follow to impart knowledge. Quality teaching requires competent and trained teachers, student-centric and participatory learning, good working conditions for teachers, and feedback and assessment mechanisms.

A system established to take care of the above characteristics would contribute to quality outcomes. The outlining of above broader approach suggests that quality is not a static concept and the definition must therefore be open to changing contexts and educational challenges. There are two main approaches to understanding the quality of education. The first is based on the human capital theory and the other on human rights. The human capital approach stresses on the contribution of education in terms of economic growth, poverty reduction, women empowerment, and welfare. It thus mainly provides an economic rationale to focus on quality education. Studies based on this approach often use some indicator of student achievement to measure the quality of education. The rights based approach, on the other hand, sees human rights as ‘fundamental, indivisible and integral to the development process’. This approach to quality of education therefore has its thrust on teaching approaches that are learner-centric with democratic school structures established within the human rights approach.

Criticizing the two approaches, Tikly and Barrett (2011) put forward an alternative framework based on the social justice perspective. This framework takes into account three dimensions of quality of education viz. inclusion, relevance and democratic. The
Inclusion dimension is concerned with the ‘access’ that different segments of population can have to the kind of education which offers the opportunities for achieving the desired outcomes. The relevance dimension is concerned with the extent to which learning outcomes are meaningful for the learners and further by the yardstick of ‘whether such education is consistent with national development priorities in a changing global context’. The democratic dimension emphasizes on the role of ‘participatory social justice in relation to educational quality’.

16.5.1 Accreditation and Ranking

Even after the conceptual issue of quality of education is resolved, its measurement continues to pose its own challenges. One of the reasons for this is the issue of ‘information asymmetry’ which is a major barrier to optimal choice. The question, therefore, is how to overcome the limitations posed by it? A partial answer, as discussed in Section 16.2, is regulation. Further, to some extent, lack of knowledge about quality differences across different providers can be overcome through certification and accreditation. Accreditation can be particularly useful for higher educational sector which in many countries is made a pre-requisite for ranking the institutions. In India, the National Assessment and Accreditation Council (NAAC) was established in 1994 as an autonomous body, under the aegis of the University Grant Commission, to assess and accredit institutions of higher education in the country. Accreditation has at least two benefits. First, it assures the consumers that a pre-determined set of quality standards is conformed. Second, it encourages institutions to make efforts for improving their ranking. However, ranking has its own limitations. One, ranking is sensible and meaningful only across a comparable (homogeneous) set of institutions. Two, if we consider university as a multi-product firm, ranking may ignore some of these products as it would be based on certain common attributes. There are also other methodological issues like ‘aggregation of indicators’ which plague ranking.

16.6 Skill Development

Towards skill development of a country’s labour force, one of the first goals for any country is to achieve universalisation of school level education. Once a country makes sufficient progress on this front, it then needs to focus on skills. The word ‘skills’ is a broad term encompassing cognitive, non-cognitive and technical skills. Cognitive skills are the basic mental abilities used to think, study, reason, and learn. Non-cognitive skills refer to personality traits and behaviours. These include motivation, integrity, personal communication, etc. which are all together known as ‘soft’ skills. Technical skills, in particular, is often related to a specific field of employment. Skills are acquired through various means. Formal education is one way of acquiring skills. Informal education, specialized training, and learning by experience are other ways. The latter are mostly relevant for acquisition of non-cognitive and technical skills.

At the individual level, skills are important determinants of labour market outcomes as it determines his/her employability and also productivity. Eric Hanushek (and others: 2015), in a recent study based on a survey of 22 countries, estimated that one standard deviation increase in numeracy skills is associated with 18 percent increase in wages, though there is considerable heterogeneity across the countries. There is a similar evidence on non-cognitive skills by Heckman and others who find that non-cognitive skills matter not just for wages but also the early schooling decisions. At the national level, skill development helps an economy to attain higher levels of economic growth and to respond to the changing global scenario. Examining why the expansion of school attainment has not guaranteed better economic conditions, Hanushek and Woessmann
(2008) have argued that the skills of the population—rather than mere school attainment—is a stronger determinant of individual earnings than the factors like distribution of income and economic growth. In order to improve the well-being of their citizens, all countries—and developing countries in particular—need to focus on attainment of skill development of its labour force to aid the process of achievement of higher economic growth. One way of doing this is to improve productivity. Given the rapid technological change, improvements in productivity require not just the investments in capital, but also investments made on work force to make them competitive and flexible in order that they can acquire new skills required for the jobs generated as a result of technological change. Labour productivity and flexibility of the workforce enable a country to produce quality goods and services at low cost and adapt easily to the changing technological needs of shifts in the production systems to cater to new markets and products. Thus, in an era of knowledge-based economies, skill development becomes ever more important. The emerging production technologies favour skilled workers over the unskilled ones. This trend has been termed as skill-biased technical change (SBTC). Several economists have argued that SBTC creates a wedge between different sub-groups of workers. Thus, workers equipped with certain skills are likely to be rewarded more than those without skills because of a rise in the former’s relative productivity. Such a change might lead to a rise in wage inequality. A typical example of the SBTC is use of the Information Technology based devices in offices which has led to virtual automation of work. Several empirical studies have documented that imparting IT skills significantly improves the employee performance. The IT infrastructure of a firm, IT skills of its employees, and the firm’s ability to leverage IT resources serve as firm-specific resources and these resources together create a firm-wide IT capability, which in turn leads to enhanced output.

### 16.6.1 Initiatives Towards Skill Development in India

In India, skill development has remained on its policy agenda of several ministries of the government. Among these, the Ministry of Human Resource Development and the Ministry of Labour and Employment are the major ones. The government’s policy has been responsive to the changing needs of the global scenario. For instance, recognising that ‘skill-building is not a static process and individual’s skills need to be upgraded continuously for the workforce to remain relevant and employable’, the Twelfth Five Year Plan (2012-17) incorporated specific provisions for skill development. The National Skill Development Policy, released in 2009, also stressed, among other things, the importance of improving India’s competitiveness in the global market. Nevertheless, a major shortcoming has been in terms of its timing which has not been optimal.

A major policy push to skill development in the country came in November 2014 when the newly elected government created a dedicated Ministry of Skill Development and Entrepreneurship. Several organisations such as Directorate General of Training, National Skill Development Agency, and National Skill Development Corporation were brought under this Ministry. The government also launched Skill India initiative on the occasion of World Youth Skills Day on 15 July 2015. As a part of Skill India, the government also released the National Policy for Skill Development and Entrepreneurship 2015. Skill development was also the theme of the Delhi Book Fair 2015.

### 16.6.2 Vocational and Technical Education

Generally speaking, vocational education and training (VET) refers to skill-based programmes that focus on specific trades imparting the practical skills which allow
individuals to engage in a specific occupational activity. In India, the VET programmes are aimed at creating employment opportunities and imparting suitable skills needed for self-employment particularly in the rural and unorganised sectors.

Different terminologies are used to refer to the VET programs in different parts of the world. In Europe and Australia the term vocational education and training (VET) is used to refer to vocational and technical education undertaken in schools and tertiary institutions. Further, a distinction is made in Europe between the initial vocational education and training (IVET) and continuing vocational education and training (CVET). The former is aimed at ‘young learners’ whereas the latter is aimed at upgrading the skills and competencies of adults. In the United States, a term ‘career and technical education’ (CTE) is used. The UNESCO’s centre for technical and vocational education and training, UNESCO-UNEVOC, uses the term technical and vocational education and training (TVET). This usage is more popular in Asia. However, in the Indian context, it is preferable not to split the term vocational and technical education (into vocational education and technical education) as the separation could lead to confusion. This is because technical education is sometimes interpreted as a different domain altogether, though quite often the two terms ‘technical education’ and ‘vocational education’ are also used synonymously. When interpreted differently, the former mostly refers to post-secondary courses of study and practical training aimed at preparation of technicians to work as supervisory staff whereas the latter refers to lower level education and training for skilled or semi-skilled workers in various trades.

The Kothari Commission (1966) had observed that nearly half of the students completing the 10\textsuperscript{th} standard may be diverted to the vocational stream. This observation was made with a view to not only reducing the pressure on the higher education sector but also to help prepare large number of students (who may for various reasons either not be able or interested to go for higher education) enter the ‘world of work’ (employment). Thereafter, the vocational education scheme at the senior secondary (10+2) level came into existence in the 1970s. In the mid-1980s, the Working Group on Vocationalisation of Education (1985) reviewed the vocational education program. This led to the scheme of Vocationalisation of Secondary Education launched in 1988. The main objective of the scheme was to improve the employment opportunities available for individuals by enhancing the individual employability level thereby reducing the demand and supply mismatch of skilled manpower. Since the inception of the scheme, the intake capacity in the more than 10,000 schools/institutions has reached nearly 10 lakh (cumulative) students. The scheme, however, had only a limited success as the subsequent evaluation exercises undertaken by different agencies [such as the Operation Research Group (1996) and the National Council of Educational Research and Training (1998)] pointed out. These studies revealed several problems in the operation of the scheme such as: (i) low priority accorded to vocational education; (ii) lack of coordination among different government departments; (iii) quality of teachers and training; (iv) lack of financial resources; and (v) lack of integration with the various levels of school education. The scheme was once again revised during the Tenth Plan (2002-07) to address some of these issues. In 2011, several more changes were made with the scheme renamed as Vocationalisation of Secondary and Higher Secondary Education. Some of these changes made are:

- Introduction of vocational education at the secondary stage (class IX onwards);
- Changes in the pattern of sharing funds between the centre and the states;
- Identification and implementation of demand-driven modular vocational courses in collaboration with industry/employers;
Engagement with the Industry/Sector Skill Councils for training, assessment and certification; and

Implementation of the National Vocational Education Qualification Framework (NVEQF).

Check Your Progress 2 [answer the questions in about 100 words in the space given]

1) What is meant by ‘demographic dividend’?

2) State the three reasons why demographic dividend is beneficial for an economy.

3) What indicators have commonly been considered for measuring the quantitative and qualitative sides of education?

4) What are the four inter-dependent characteristics of quality of education provided by the UNICEF? Why is quality of education considered a dynamic concept?

5) What are the two main theoretical approaches developed to understand the concept of ‘quality’ in education? What are its major thrust and in what terms do they basically differ?
6) What alternative approach to assessment of quality education is advanced by Tikly and Barett? Mainly, which three dimensions does it cover?
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................

7) How is ‘accreditation’ useful? In this context, what are the limitations of ‘ranking’ of institutions?
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................

8) What are the three components into which ‘skills’ are broadly classified? What is the reference that is usually made to indicate ‘soft skills’?
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................

9) What is SBTC? Is it employment enhancing or productivity enhancing?
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................

10) What are the major factors identified by different agencies as contributing to the limited success of ‘Vocationalisation of Secondary Education’ launched in 1988?
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................

11) State some of the major changes made in the Vocationalisation Policy of Education in India in 2011?
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................
16.7 LET US SUM UP

Education is important to both individuals and countries. The United Nations has termed education as the real wealth of nations. The present unit began with a brief description of the market for education. Since education is a quasi-public good and has significant externalities, its provision is fraught with several problems. Hence, there is a role for government to regulate and balance the efficiency and equity considerations. Quasi-markets emerged first in 1980s in some of the European countries. The Unit has discussed issues of demographic dividend and hindrances to its realisation, quality of education and its measurement, skill development and its importance, and vocational and technical education.

16.8 KEY WORDS

Market failure : Inability of the market forces to deliver efficient (Pareto optimal) outcomes. In the case of merit goods, such as education, market mechanisms often fail to do so, necessitating government intervention.

Cobwebs : If there is a time lag between the demand and supply decisions, the prices usually fluctuate in periodic manner. Because of this, oscillating disequilibrium might occur leading to absence of the demand-supply equilibrium. This phenomenon is known as cobweb cycle.

Quasi-markets : These are institutional arrangements designed to extend the principle of markets and competition to the provision of the services while safeguarding free and universal access fundamental to the concept of the welfare state.

Demographic dividend : Refers to the potential opportunities offered by having a large young and working age population.

16.9 SUGGESTED REFERENCES FOR FURTHER READING


**16.10 ANSWERS/HINTS TO CYP EXERCISES**

**Check Your Progress 1**

1) See 16.1 and answer.

2) See 16.1 and answer.

3) See 16.1 and answer.

4) See 16.1 and answer.

5) See 16.2.1 and answer.

6) See 16.2.2 and answer.

7) See 16.3 and answer.

8) See 16.3.1 and answer.

9) See 16.3.1 and answer.

10) See 16.3.2 and answer.

**Check Your Progress 2**

1) See 16.4 and answer.

2) See 16.4 and answer.

3) See 16.5 and answer.

4) See 16.5 and answer.

5) See 16.5 and answer.

6) See 16.5 and answer.

7) See 16.5.1 and answer.

8) See 16.6 and answer.

9) See 16.6 and answer.

10) See 16.6.2 and answer.

11) See 16.6.2 and answer.